FORM 3

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☑

APPLICATION FOR PERMIT TO DRILL		1. WELL NAME and NUMBER: NBU 921-23E4BS
2. TYPE OF WORK: DRILL NEW WELL ◉ REENTER P&A WELL ○ DEEPEN WELL ○		3. FIELD OR WILDCAT: NATURAL BUTTES
4. TYPE OF WELL: Gas Well Coalbed Methane Well: NO		5. UNIT or COMMUNITIZATION AGREEMENT NAME: NATURAL BUTTES
6. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. OPERATOR PHONE: 720 929-6587
8. ADDRESS OF OPERATOR: P.O. Box 173779, Denver, CO, 80217		9. OPERATOR E-MAIL: mary.mondragon@anadarko.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE): UTU 0149075	11. MINERAL OWNERSHIP: FEDERAL ◉ INDIAN ○ STATE ○ FEE ○	12. SURFACE OWNERSHIP: FEDERAL ○ INDIAN ◉ STATE ○ FEE ○
13. NAME OF SURFACE OWNER (if box 12 = 'fee')		14. SURFACE OWNER PHONE (if box 12 = 'fee')
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')		16. SURFACE OWNER E-MAIL (if box 12 = 'fee')
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN'): UTE TRIBE	18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS: YES ◉ (Submit Commingling Application) NO ○	19. SLANT: VERTICAL ○ DIRECTIONAL ◉ HORIZONTAL ○

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	2172 FNL 530 FWL	SWNW	23	9.0 S	21.0 E	S
Top of Uppermost Producing Zone	2080 FNL 665 FWL	SWNW	23	9.0 S	21.0 E	S
At Total Depth	2080 FNL 665 FWL	SWNW	23	9.0 S	21.0 E	S

21. COUNTY: UINTAH	22. DISTANCE TO NEAREST LEASE LINE (Feet): 665	23. NUMBER OF ACRES IN DRILLING UNIT: 640
	25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed): 315	26. PROPOSED DEPTH: MD: 9956 TVD: 9950
27. ELEVATION - GROUND LEVEL: 4863	28. BOND NUMBER: WYB000291	29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE: Permit #43-8496

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	☑ COMPLETE DRILLING PLAN
☐ AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)	☐ FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
☑ DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)	☑ TOPOGRAPHICAL MAP

NAME: Kathy Schneebeck-Dulnoan	TITLE: Staff Regulatory Analyst	PHONE: 720 929-6007
SIGNATURE	DATE: 08/03/2009	EMAIL: Kathy.SchneebeckDulnoan@anadarko.com

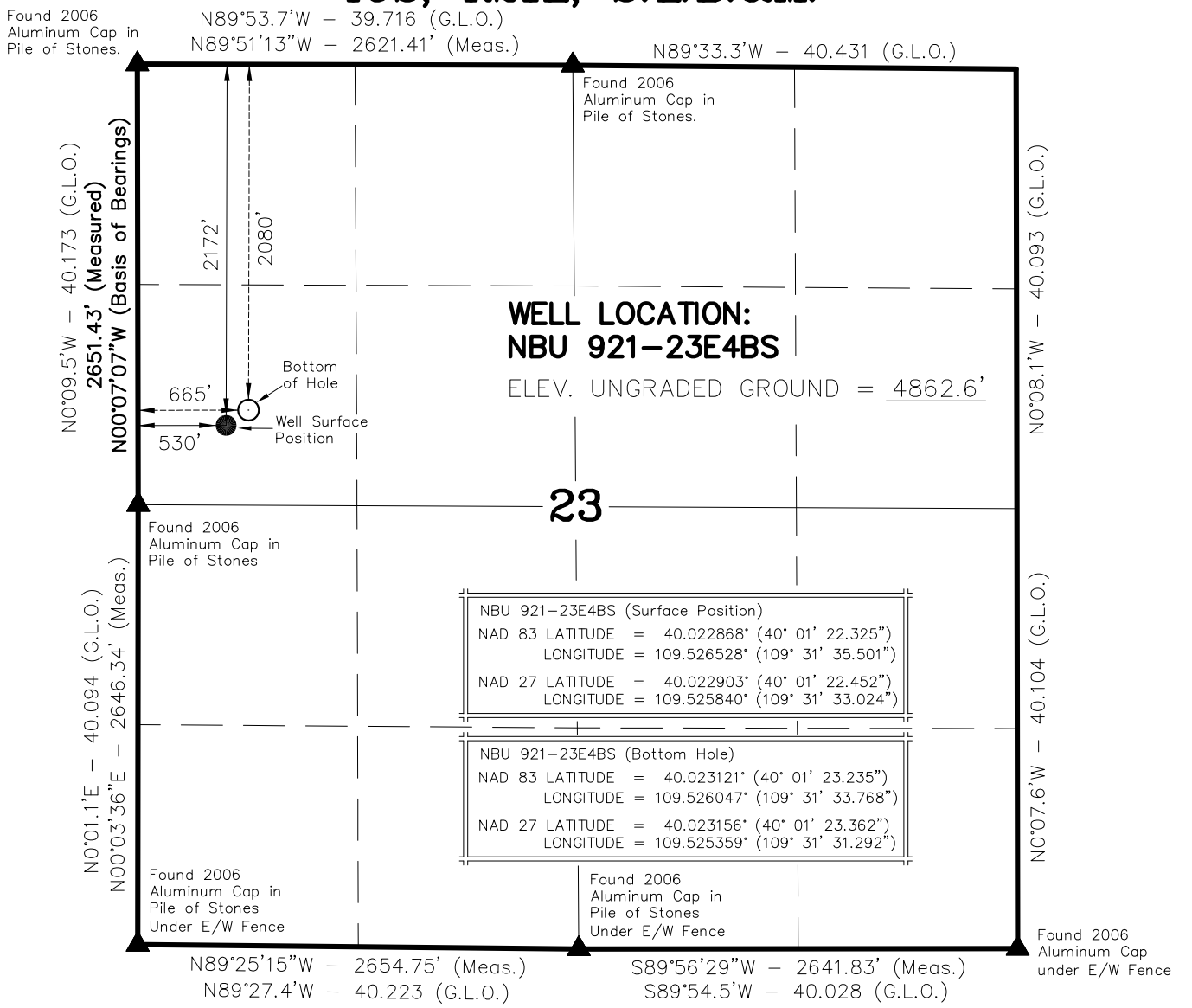
API NUMBER ASSIGNED	APPROVAL
43047506190000	 Permit Manager

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Prod	7.875	4.5	0	10034		
Pipe	**Grade**	**Length**	**Weight**			
	Grade HCP-110 LT&C	300	11.6			
	Grade I-80 LT&C	9656	11.6			

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Surf	12.25	9.625	0	2560		
Pipe	**Grade**	**Length**	**Weight**			
	Grade J-55 LT&C	2560	36.0			

'APIWellNo:43047506190000'

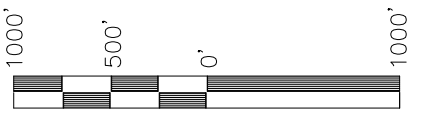
T9S, R21E, S.L.B.&M.



NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. The Bottom of hole bears N55°41'07"E 163.28' from the Surface Position.
4. Bearings are based on Global Positioning Satellite observations.
5. Basis of elevation is Tri–Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri–Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



SCALE

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION No. 362251
STATE OF UTAH

REGISTERED LAND SURVEYOR No.362251 KOLBY R. KAY STATE OF UTAH

Kerr–McGee
Oil & Gas Onshore, LP
1099 18th Street – Denver, Colorado 80202

NBU 921-23E4BS
WELL PLAT
2080' FNL, 665' FWL (Bottom Hole)
SW ¼ NW ¼ OF SECTION 23, T9S, R21E,
S.L.B.&M. UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789–1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST – VERNAL, UTAH 84078

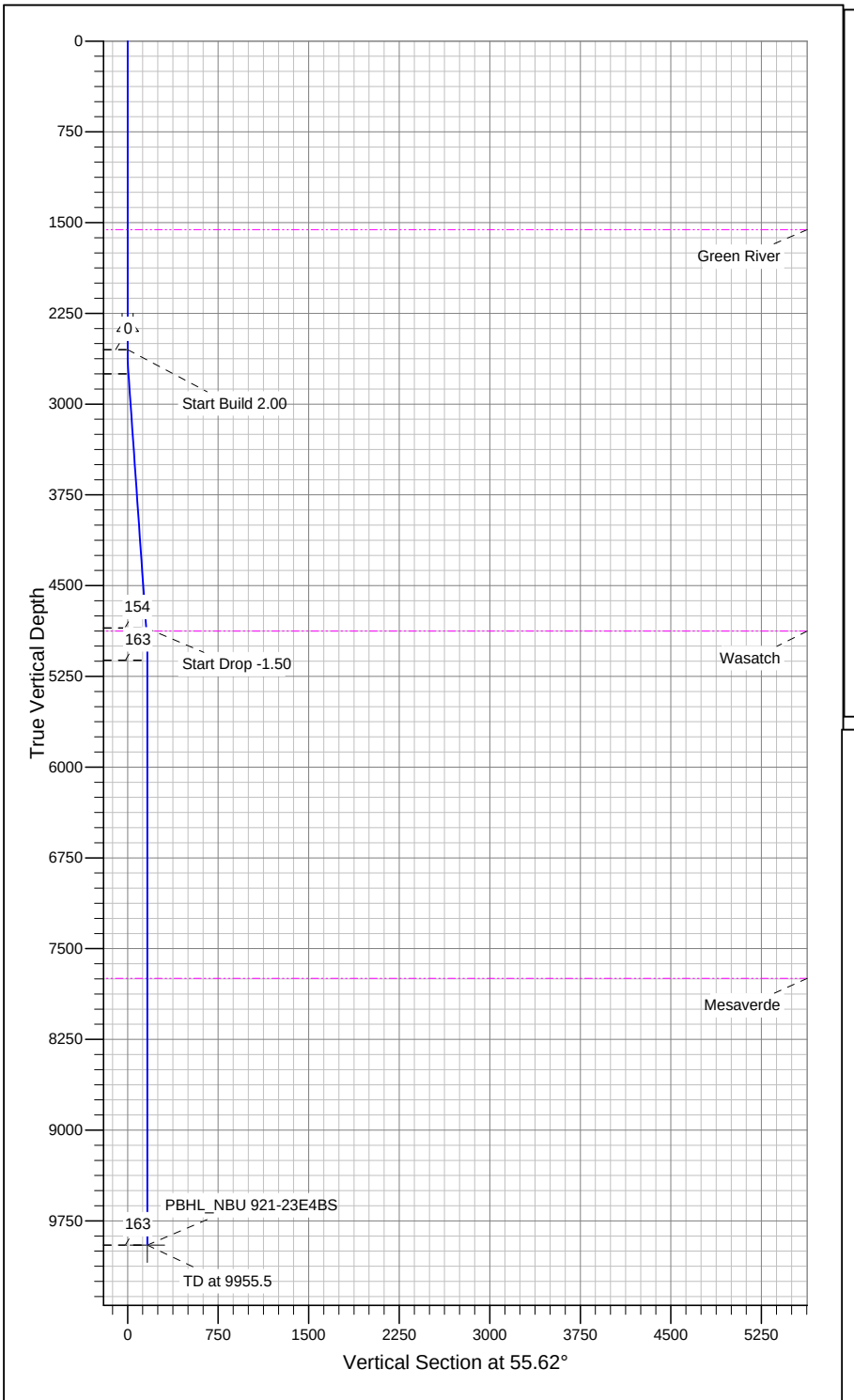
DATE SURVEYED: 01–06–09	SURVEYED BY: M.S.B.	SHEET
DATE DRAWN: 02–13–09	DRAWN BY: M.W.W.	4
SCALE: 1" = 1000'	Date Last Revised: 04–23–09	OF 13

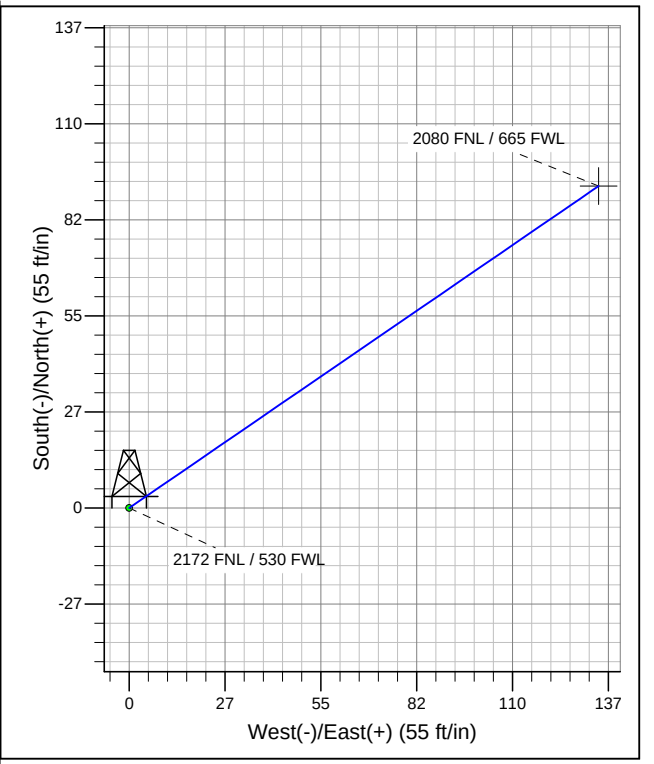
’APIWellNo:43047506190000’

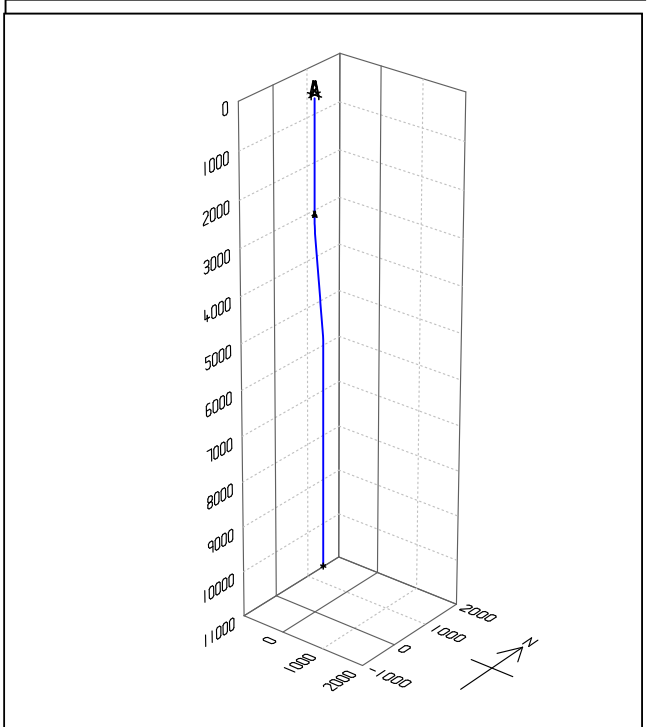
Anadarko Petroleum Corporation

Well Name: P_NBU 921-23E4BS
Surface Location: UINTAH_NBU 921-23E PAD
NAD 1927 (NADCON CONUS) Universal Transverse Mercator (US Survey Feet)
UTAH - UTM (feet), NAD27, Zone 12N
Ground Elevation: 4862.0

Northing	Easting	Latitude	Longitude
14537799.03	2053137.43	40.022903°N	109.525840°W

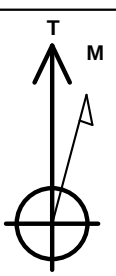






SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
2	2550.0	0.00	0.00	2550.0	0.0	0.0	0.00	0.00	0.0
3	2750.0	4.00	55.62	2749.8	3.9	5.8	2.00	55.62	7.0
4	4856.0	4.00	55.62	4850.7	86.9	127.0	0.00	0.00	153.9
5	5122.7	0.00	0.00	5117.2	92.1	134.7	1.50	180.00	163.2
6	9955.5	0.00	0.00	9950.0	92.1	134.7	0.00	0.00	163.2



Azimuths to True North
Magnetic North: 11.34°

Magnetic Field
Strength: 52573.3snT
Dip Angle: 65.94°
Date: 5/15/2009
Model: IGRF200510

ROCKIES - PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
UINTAH_NBU 921-23E PAD
P_NBU 921-23E4BS
P_NBU 921-23E4BS

Plan: Plan #1 05-15-09 ZJRA6

Standard Planning Report - Geographic

15 May, 2009

APC

Planning Report - Geographic

Database:	apc_edmp	**Local Co-ordinate Reference:**	Well P_NBU 921-23E4BS
Company:	ROCKIES - PLANNING	**TVD Reference:**	WELL @ 4862.0ft (Original Well Elev)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	WELL @ 4862.0ft (Original Well Elev)
Site:	UINTAH_NBU 921-23E PAD	**North Reference:**	True
Well:	P_NBU 921-23E4BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	P_NBU 921-23E4BS		
Design:	Plan #1 05-15-09 ZJRA6		

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System:	Universal Transverse Mercator (US Survey Fee	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site UINTAH_NBU 921-23E PAD

Site Position:		**Northing:**	14,537,799.03 ft	**Latitude:**	40.022903°N
From:	Lat/Long	**Easting:**	2,053,137.43 ft	**Longitude:**	109.525840°W
Position Uncertainty:	0.0 ft	**Slot Radius:**	"	**Grid Convergence:**	0.95 °

Well P_NBU 921-23E4BS

Well Position	**+N/-S**	0.0 ft	**Northing:**	14,537,799.03 ft	**Latitude:**	40.022903°N
	+E/-W	0.0 ft	**Easting:**	2,053,137.43 ft	**Longitude:**	109.525840°W
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,862.0 ft

Wellbore P_NBU 921-23E4BS

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	5/15/2009	11.34	65.94	52,573

Design Plan #1 05-15-09 ZJRA6

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	9,950.0	0.0	0.0	55.62

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,550.0	0.00	0.00	2,550.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,750.0	4.00	55.62	2,749.8	3.9	5.8	2.00	2.00	0.00	55.62	
4,856.0	4.00	55.62	4,850.7	86.9	127.0	0.00	0.00	0.00	0.00	
5,122.7	0.00	0.00	5,117.2	92.1	134.7	1.50	-1.50	0.00	180.00	
9,955.5	0.00	0.00	9,950.0	92.1	134.7	0.00	0.00	0.00	0.00	PBHL_NBU 921-23

APC

Planning Report - Geographic

Database:	apc_edmp	**Local Co-ordinate Reference:**	Well P_NBU 921-23E4BS
Company:	ROCKIES - PLANNING	**TVD Reference:**	WELL @ 4862.0ft (Original Well Elev)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	WELL @ 4862.0ft (Original Well Elev)
Site:	UINTAH_NBU 921-23E PAD	**North Reference:**	True
Well:	P_NBU 921-23E4BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	P_NBU 921-23E4BS		
Design:	Plan #1 05-15-09 ZJRA6		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	14,537,799.03	2,053,137.43	40.022903°N	109.525840°W
1,558.0	0.00	0.00	1,558.0	0.0	0.0	14,537,799.03	2,053,137.43	40.022903°N	109.525840°W
Green River									
2,400.0	0.00	0.00	2,400.0	0.0	0.0	14,537,799.03	2,053,137.43	40.022903°N	109.525840°W
Surface Casing									
2,550.0	0.00	0.00	2,550.0	0.0	0.0	14,537,799.03	2,053,137.43	40.022903°N	109.525840°W
2,750.0	4.00	55.62	2,749.8	3.9	5.8	14,537,803.06	2,053,143.13	40.022914°N	109.525819°W
4,856.0	4.00	55.62	4,850.7	86.9	127.0	14,537,888.01	2,053,262.99	40.023142°N	109.525386°W
4,880.3	3.64	55.62	4,875.0	87.8	128.3	14,537,888.94	2,053,264.31	40.023144°N	109.525382°W
Wasatch									
5,122.7	0.00	0.00	5,117.2	92.1	134.7	14,537,893.39	2,053,270.58	40.023156°N	109.525359°W
7,751.5	0.00	0.00	7,746.0	92.1	134.7	14,537,893.39	2,053,270.58	40.023156°N	109.525359°W
Mesaverde									
9,955.5	0.00	0.00	9,950.0	92.1	134.7	14,537,893.39	2,053,270.58	40.023156°N	109.525359°W

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL_NBU 921-23E4 - plan hits target center - Point	0.00	0.00	9,950.0	92.1	134.7	14,537,893.39	2,053,270.58	40.023156°N	109.525359°W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
2,400.0	2,400.0	Surface Casing	9-5/8	12-1/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,558.0	1,558.0	Green River		0.00	
4,880.3	4,875.0	Wasatch		0.00	
7,751.5	7,746.0	Mesaverde		0.00	

NBU 921-23E4BS
Pad: NBU 921-23E
Surface: 2,172’ FNL, 530’ FWL (SW/4NW/4)
BHL: 2,080’ FNL 665’ FWL (SW/4NW/4)
Sec. 23 T9S R21E

Uintah, Utah
Mineral Lease: UTU 0149075

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. – 2. Estimated Tops of Important Geologic Markers:
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Formation	Depth	Resource
Uinta	0 – Surface	
Green River	1,558’	
Birds Nest	1,860’	Water
Mahogany	2,360’	Water
Wasatch	4,875’	Gas
Mesaverde	7,746’	Gas
MVU2	8,693’	Gas
MVL1	9,254’	Gas
TVD	9,950’	
TD	9,956’	

3. Pressure Control Equipment (Schematic Attached)

Please refer to the attached Drilling Program.

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program.

5. Drilling Fluids Program:

Please refer to the attached Drilling Program.

6. Evaluation Program:

Please refer to the attached Drilling Program.

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 9,956' TD, approximately equals 6,203 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 4,010 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements
The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements
KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). The air rig operation utilizes a 5M BOPE when drilling. This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.

'APIWellNo:43047506190000'

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	August 3, 2009	
WELL NAME	**NBU 921-23E4BS**		TD	9,950' TVD	9,956' MD
FIELD	Natural Buttes	COUNTY Uintah	STATE Utah	FINISHED ELEVATION	4,862'
SURFACE LOCATION	SW/4 NW/4 2,172' FNL	530' FWL	Sec 23	T 9S	R 21E
	Latitude: 40.022868	Longitude: -109.526528		NAD 83	
BTM HOLE LOCATION	SW/4 NW/4 2,080' FNL	665' FWL	Sec 23	T 9S	R 21E
	Latitude: 40.023121	Longitude: -109.526047		NAD 83	
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), Ute Tribe (Surface), UDOGM Tri-County Health Dept.				

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		20'		14"	
			12-1/4"	9-5/8", 36#, J-55, LTC	Air mist
	Green River @	1,558'			
	Top of Birds Nest @	1,860			
	Mahogany @	2,360			
	Preset f/ GL @ 2,560' MD				
	Wasatch @	4,875'			
	Mverde @	7,746' TVD			
	MVU2 @	8,693' TVD			
	MVU1 @	9,254' TVD			
	TD @	9,950' TVD / 9,956' MD	7-7/8"	4-1/2" 11.6# I-180 & HCP-110 or equivalent LTC csg	Water / Fresh Water Mud 8.3-12.2 ppg

All water flows encountered while drilling will be reported to the appropriate agencies.

Note: 12.25" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.

Mud logging program TBD

Cased hole logging program from TD - surf csg

Max anticipated Mud required 12.2 ppg

'APIWellNo:43047506190000'

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'								
								3,520	2,020	453,000
SURFACE	9-5/8"	0	to	2,560	36.00	J-55	LTC	0.85	1.69	6.26
								7,780	6,350	201,000
PRODUCTION	4-1/2"	0	to	9,656	11.60	I-80	LTC	1.89	1.06	2.14
								10,690	8,650	279,000
	4-1/2"	9,656	to	9,956	11.60	HCP-110	LTC	161.97	1.37	98.54

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
(Burst Assumptions: TD = 12.2 ppg) 0.22 psi/ft = gradient for partially evac wellbore
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MASP 4,010 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
(Burst Assumptions: TD = 12.2 ppg) 0.62 psi/ft = bottomhole gradient
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MABHP 6,203 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1			+ 0.25 pps flocele				
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	380	0%	15.60	1.18
			+ 2% CaCl + 0.25 pps flocele				
			Premium cmt + 2% CaCl				
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**				
Option 2	LEAD	2,060'	65/35 Poz + 6% Gel + 10 pps gilsonite	490	35%	12.60	1.81
			+ 0.25 pps Flocele + 3% salt BWOW				
	TAIL	500'	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	4,366'	Premium Lite II + 3% KCl + 0.25 pps	420	40%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	5,590'	50/50 Poz/G + 10% salt + 2% gel	1,370	40%	14.30	1.31
			+ 0.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained
*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

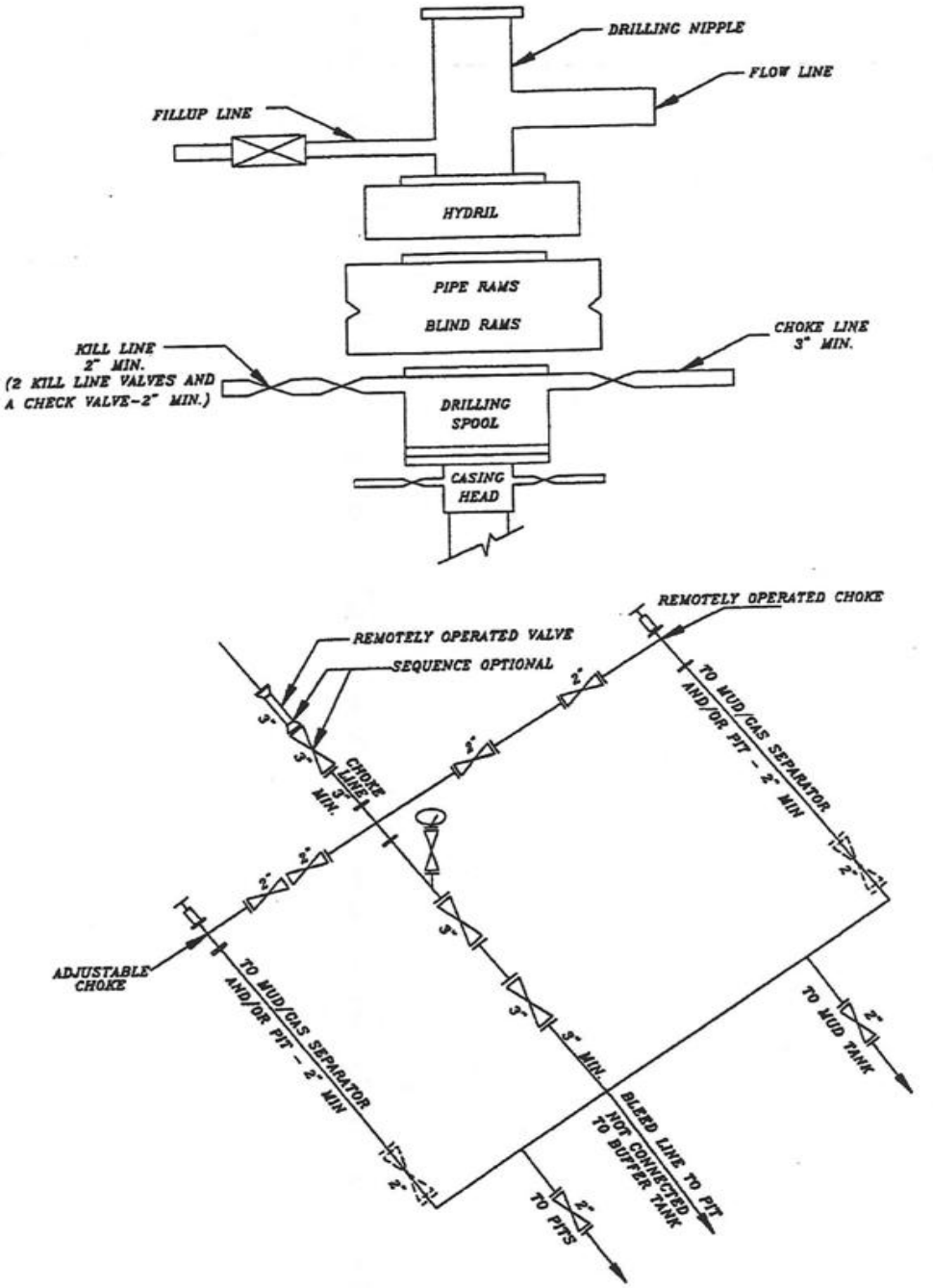
Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: _____ **DATE:** _____
John Huycke / Emile Goodwin

DRILLING SUPERINTENDENT: _____ **DATE:** _____
John Merkel / Lovel Young

EXHIBIT A
NBU 921-23E4BS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

'APIWellNo:43047506190000'

WELL PAD INTERFERENCE PLAT

DIRECTIONAL PAD – NBU 921-23E

BASIS OF BEARINGS IS THE WEST LINE OF THE NW 1/4 OF SECTION 23, T9S, R21E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°07'07"W.

SURFACE POSITION FOOTAGES:

NBU 921-23L1BS
2201' FNL & 477' FWL

NBU 921-23E1CS
2192' FNL & 495' FWL

NBU 921-23F4CS
2182' FNL & 512' FWL

NBU 921-23E4BS
2172' FNL & 530' FWL

EXISTING WELL NBU 921-23E
2218' FNL & 509' FWL

LATITUDE & LONGITUDE
Surface Position – (NAD 83)

WELL	N. LATITUDE	W. LONGITUDE
921-23L1BS	40°01'22.042" 40.022789°	109°31'36.178" 109.526716°
921-23E1CS	40°01'22.136" 40.022816°	109°31'35.952" 109.526653°
921-23F4CS	40°01'22.231" 40.022842°	109°31'35.726" 109.526590°
921-23E4BS	40°01'22.325" 40.022868°	109°31'35.501" 109.526528°
Existing Well NBU 921-23E	40°01'21.876" 40.022743°	109°31'35.768" 109.526602°

LATITUDE & LONGITUDE
Bottom Hole – (NAD 83)

WELL	N. LATITUDE	W. LONGITUDE
921-23L1BS	40°01'16.293" 40.021193°	109°31'33.749" 109.526041°
921-23E1CS	40°01'26.328" 40.023980°	109°31'33.779" 109.526050°
921-23F4CS	40°01'19.802" 40.022167°	109°31'16.793" 109.521331°
921-23E4BS	40°01'23.235" 40.023121°	109°31'33.768" 109.526047°

RELATIVE COORDINATES
From Surface Position to Bottom Hole

WELL	NORTH	EAST
921-23L1BS	-582'	189'
921-23E1CS	424'	169'
921-23F4CS	-247'	1,473'
921-23E4BS	92'	135'

Az=21.76167°
N21°45'42"E – 456.73'
(To Bottom Hole)

N

NBU 921-23L1BS
Az. to Exist. W.H.=117.79833° 36.1'

NBU 921-23E1CS
Az. to Exist. W.H.=151.49472° 30.0'

NBU 921-23F4CS
Az. to Exist. W.H.=185.23222° 36.1'

NBU 921-23E4BS
Az. to Exist. W.H.=204.59222° 50.0'

Az=55.68528°
N55°41'07"E – 163.28'
(To Bottom Hole)

Az=99.51194°
S80°29'17"E – 1493.64'
(To Bottom Hole)

20'

EXISTING WELL: NBU 921-23E

S61°26'37"W
Az=241.44361°

LATITUDE & LONGITUDE
Surface Position – (NAD 27)

WELL	N. LATITUDE	W. LONGITUDE
921-23L1BS	40°01'22.169" 40.022825°	109°31'33.702" 109.526028°
921-23E1CS	40°01'22.263" 40.022851°	109°31'33.476" 109.525965°
921-23F4CS	40°01'22.358" 40.022877°	109°31'33.249" 109.525903°
921-23E4BS	40°01'22.452" 40.022903°	109°31'33.024" 109.525840°
Existing Well NBU 921-23E	40°01'22.003" 40.022779°	109°31'33.291" 109.525914°

BOTTOM HOLE FOOTAGES

NBU 921-23L1BS
2520' FSL & 665' FWL

NBU 921-23E1CS
1767' FNL & 665' FWL

NBU 921-23F4CS
2425' FNL & 1985' FWL

NBU 921-23E4BS
2080' FNL & 665' FWL

Az=162.03944°
S17°57'38"E – 611.81'
(To Bottom Hole)

LATITUDE & LONGITUDE
Bottom Hole – (NAD 27)

WELL	N. LATITUDE	W. LONGITUDE
921-23L1BS	40°01'16.420" 40.021228°	109°31'31.273" 109.525354°
921-23E1CS	40°01'26.455" 40.024015°	109°31'31.303" 109.525362°
921-23F4CS	40°01'19.929" 40.022203°	109°31'14.318" 109.520644°
921-23E4BS	40°01'23.362" 40.023156°	109°31'31.292" 109.525359°

60' 30' 0' 60'

SCALE

Kerr-McGee
Oil & Gas Onshore, LP
1099 18th Street – Denver, Colorado 80202

NBU 921-23L1BS, NBU 921-23E1CS, NBU 921-23F4CS & NBU 921-23E4BS LOCATED IN SECTION 23, T9S, R21E, S.L.B.&M. UINTAH COUNTY, UTAH.

609
CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

DATE SURVEYED: 01-06-09	SURVEYED BY: M.S.B.
DATE DRAWN: 02-16-09	DRAWN BY: M.W.W.
	REVISED: 04-23-09

Timberline (435) 789-1365
Engineering & Land Surveying, Inc.
209 NORTH 300 WEST VERNAL, UTAH 84078

SHEET 5 OF 13

'APIWellNo:43047506190000'

EXISTING ACCESS ROAD

N21°45'42"E - 456.73' (TO BOTTOM HOLE)

S80°29'17"E - 1493.64' (TO BOTTOM HOLE)

N55°41'07"E - 163.28' (TO BOTTOM HOLE)

S17°57'38"E - 611.81' (TO BOTTOM HOLE)

TOPSOIL STOCKPILE

RESERVE PIT & EXCESS CUT STOCKPILE

EXISTING WELL PAD

BOILER

DIESEL TANK

GENERATOR

MUD PUMP 1

MUD PUMP 2

MUD TANK

WATER TANK

EXISTING NBU 921-23E WELL

23E4BS

23F4CS

23E1CS

23L1BS

PIPERACKS

PIPETUBS

EXISTING METHANOL TANK

DERRICK STAND

EXISTING TANK AND BERM

EXISTING METER & SEPERATOR

RESERVE PIT 12' DEPTH SLOPE 2:1

BACKFLOW PIT 12' DEPTH SLOPE 2:1

FILL

CUT

MOVE EXISTING TOPSOIL PILE TO PROPOSED LOCATION

WELL PAD NBU 921-23E QUANTITIES

EXISTING GRADE @ CENTER OF WELL PAD = 4,862.7'
FINISHED GRADE ELEVATION = 4,862.1'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 5,371 C.Y.
TOTAL FILL FOR WELL PAD = 3,669 C.Y.
TOPSOIL @ 6" DEPTH = 1,802 C.Y.
EXCESS MATERIAL = 1,702 C.Y.
TOTAL DISTURBANCE = 3.63 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 28,730 BARRELS
RESERVE PIT VOLUME
+/- 7,720 CY
BACKFLOW PIT CAPACITY (2' OF FREEBOARD)
+/- 9,490 BARRELS
BACKFLOW PIT VOLUME
+/- 2,660 CY

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)

HORIZONTAL 0 30 60 1" = 60'
2' CONTOURS

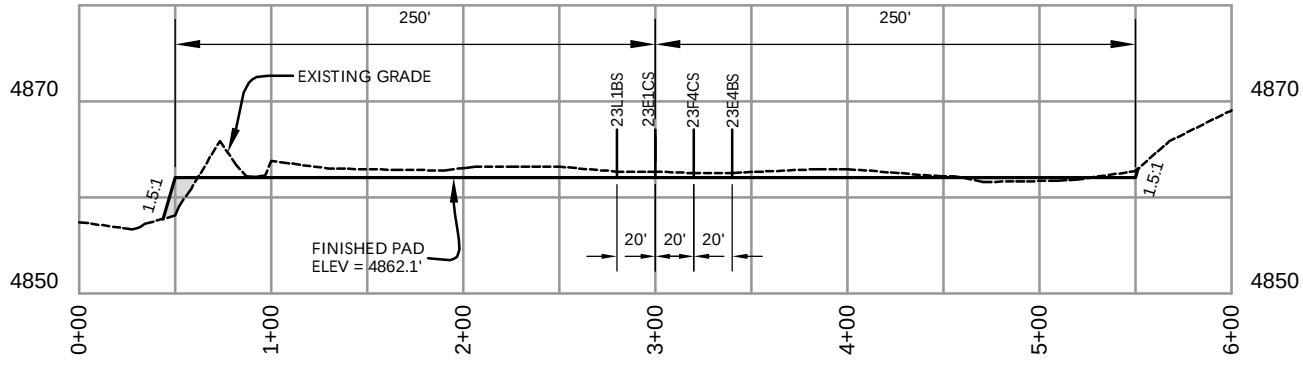
KERR-MCGEE OIL & GAS ONSHORE L.P.
1099 18th Street - Denver, Colorado 80202

WELL PAD - LOCATION LAYOUT
NBU 921-23L1BS, NBU 921-23E1CS, NBU 921-23F4CS & NBU 921-23E4BS
LOCATED IN SECTION 23, T.9S., R.21E. S.L.B.&M., UINTAH COUNTY, UTAH

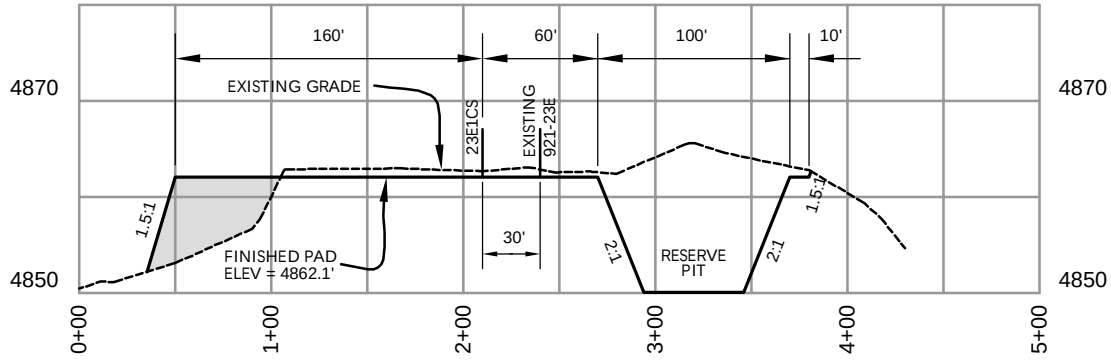
609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

Scale: 1"=60'	Date: 3/19/09	SHEET NO: 6 6 OF 13
REVISED:	RAW 5/4/09	

Timberline Engineering & Land Surveying, Inc. (435) 789-1365
38 WEST 100 NORTH VERNAL, UTAH 84078



CROSS SECTION A-A'



CROSS SECTION B-B'

NOTE: CROSS SECTION B-B' DEPICTS MAXIMUM RESERVE PIT DEPTH.

KERR-MCGEE OIL & GAS
ONSHORE L.P.
1099 18th Street - Denver, Colorado 80202

WELL PAD - CROSS SECTIONS
NBU 921-23L1BS, NBU 921-23E1CS,
NBU 921-23F4CS & NBU 921-23E4BS
LOCATED IN SECTION 23, T.9S., R.21E.
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

Scale: 1"=100'	Date: 3/19/09	SHEET NO:	
REVISED:	RAW 5/4/09	7	7 OF 13

HORIZONTAL 0 50 100 1" = 100'
VERTICAL 0 10 20 1" = 20'

Timberline Engineering & Land Surveying, Inc.
38 WEST 100 NORTH VERNAL, UTAH 84078 (435) 789-1365

'APIWellNo:43047506190000'
K:\ANADARKO\2008_2_NBU_Directional_Wells\DWGS\NBU FINAL SEC 18,19,28.dwg, 5/6/2009 11:02:47 AM

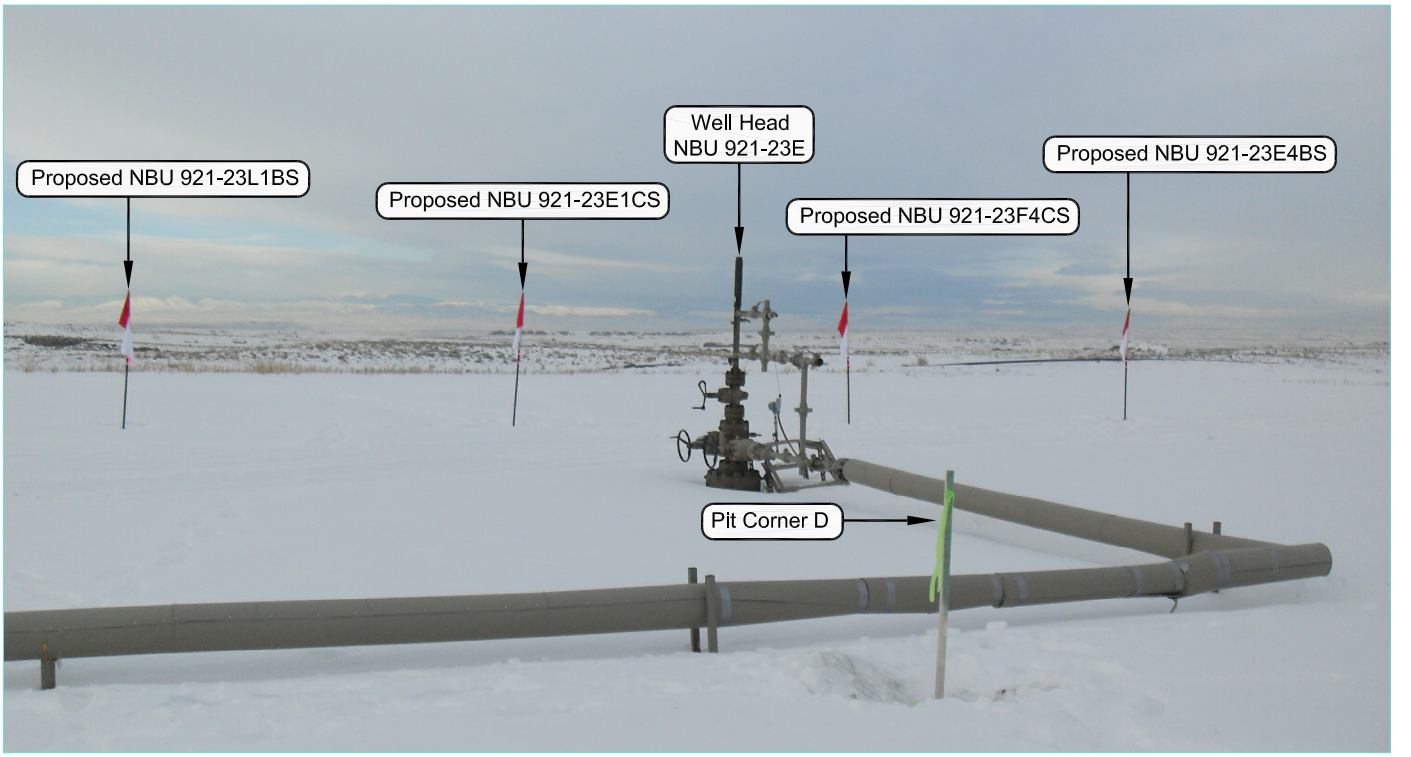


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKES

CAMERA ANGLE: NORTHERLY

PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: SOUTHWESTERLY

Kerr–McGee
Oil & Gas Onshore, LP
1099 18th Street – Denver, Colorado 80202

NBU 921-23L1BS, NBU 921-23E1CS,
NBU 921-23F4CS & NBU 921-23E4BS
LOCATED IN SECTION 23, T9S, R21E,
S.L.B.&M. UINTAH COUNTY, UTAH.

609
CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

LOCATION PHOTOS		DATE TAKEN: 01-06-09
		DATE DRAWN: 02-16-09
TAKEN BY: M.S.B.	DRAWN BY: M.W.W.	REVISED: 04-23-09

Timberline Engineering & Land Surveying, Inc.
(435) 789-1365
209 NORTH 300 WEST VERNAL, UTAH 84078

SHEET
8
OF 13

Kerr-McGee Oil & Gas Onshore, LP
NBU 921-23L1BS, NBU 921-23E1CS, NBU 921-23F4CS & NBU 921-23E4BS
Section 23, T9S, R21E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.9 MILES TO THE JUNCTION OF STATE HIGHWAY 88. EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 88 APPROXIMATELY 16.8 MILES TO OURAY, UTAH. FROM OURAY, PROCEED IN A SOUTHERLY DIRECTION ALONG THE SEEP RIDGE ROAD (COUNTY B ROAD 2810) APPROXIMATELY 11.2 MILES TO THE INTERSECTION OF THE GLEN BENCH ROAD (COUNTY B ROAD 3260). EXIT LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY, THEN NORTHEASTERLY DIRECTION ALONG THE GLEN BENCH ROAD APPROXIMATELY 11.4 MILES TO A CLASS D COUNTY ROAD TO THE SOUTHWEST. EXIT LEFT AND PROCEED IN A SOUTHWESTERLY DIRECTION ALONG THE CLASS D COUNTY ROAD APPROXIMATELY 1.8 MILES TO A SECOND CLASS D COUNTY ROAD TO THE NORTH. EXIT RIGHT AND PROCEED IN A NORTH BY NORTHWEST DIRECTION ALONG THE SECOND CLASS D COUNTY ROAD APPROXIMATELY 0.3 MILES TO A THIRD CLASS D COUNTY ROAD TO THE NORTH. EXIT RIGHT AND PROCEED IN A NORTHERLY, THEN NORTHEASTERLY DIRECTION ALONG THE THIRD CLASS D COUNTY ROAD APPROXIMATELY 1.2 MILES TO A SERVICE ROAD TO THE SOUTHEAST. EXIT RIGHT AND PROCEED IN A SOUTHEASTERLY DIRECTION ALONG THE SERVICE ROAD APPROXIMATELY 0.3 MILES TO A SECOND SERVICE ROAD TO THE EAST. EXIT LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHERLY DIRECTION ALONG THE SECOND SERVICE ROAD APPROXIMATELY 0.5 MILES TO THE NBU 921-23E WELL PAD.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 57.1 MILES IN A SOUTHERLY DIRECTION.

NBU 921-23E1CS
Surface: 2,192' FNL, 495' FWL (SW/4NW/4)
BHL: 1,767' FNL 665' FWL (SW/4NW/4)

NBU 921-23E4BS
Surface: 2,172' FNL, 530' FWL (SW/4NW/4)
BHL: 2,080' FNL 665' FWL (SW/4NW/4)

NBU 921-23F4CS
Surface: 2,182' FNL, 512' FWL (SW/4NW/4)
BHL: 2,425' FNL 1,985' FWL (SE/4NW/4)

NBU 921-23L1BS
Surface: 2,201' FNL, 477' FWL (SW/4NW/4)
BHL: 2,520' FSL 665' FWL (NW/4SW/4)

Pad: NBU 921-23E
Sec. 23 T9S R21E

Uintah, Utah
Mineral Lease: UTU 0149075

Surface Owner: Ute Indian Tribe

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN SUBMITTED WITH SITE-SPECIFIC INFORMATION

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 (OSO #1) and supporting Bureau of Land Management (BLM) and Bureau of Indian Affairs (BIA) documents. An NOS was submitted showing the surface locations in SW/4 NW/4 of Section 23 T9S R21E. The well names of the following wells have changed names, therefore some documents may reflect the old well name:

NBU 921-23E1CS was fka NBU 921-23E1BS
NBU 921-23E4BS was fka NBU 921-23E1CS
NBU 921-23F4CS was fka NBU 921-23F4BS

This Surface Use Plan of Operations (SUPO) or 13-point plan provides the site-specific information for the above-referenced wells. This information is to be incorporated by reference into the Master Development Plan (MDP) for Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee). The MDP is available upon request from the BIA-Ft Duchesne Office.

An on-site meeting was held on June 24, 2009. Present were:

- Verlyn Pindell and Dave Gordon – BLM;
- Bucky Secakuku – BIA
- Kolby Kay and Mitch Batty – Timberline Surveying, Inc.
- Nick Hall – Grasslands Consulting, Inc.
- Scott Carson – Smiling Lake Consulting
- Keith Montgomery – Montgomery Archaeological Consultants, Inc.
- Tony Kazeck, Jeff Samuels, Raleen White, David Liddell, and Hal Blanchard – Kerr-McGee

Directional Drilling:
In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, this well will be directionally drilled in order to access portions of our lease which are otherwise inaccessible due to topography.

1. Existing Roads:
A) Refer to Topo Map A for directions to the location.
B) Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

2. Planned Access Roads:
See MDP for additional details on road construction.
No new access road is proposed, as the road was previously included with the existing CIGE 46 well. Please refer to the attached Topo Map B. No pipelines will be crossed with the new construction.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site and are typically shown on the attached Exhibits and Topo maps.

3. Location of Existing Wells Within a 1-Mile Radius:
Please refer to Topo Map C.

4. Location of Existing and Proposed Facilities:
See MDP for additional details on Existing and Proposed Facilities.

This pad will expand the existing pad for the NBU 921-23E, which is a producing well according to Utah Division of Oil, Gas and Mining (UDOGM) records.

The following guidelines will apply if the well is productive.
Approximately ±1,825' (±0.35 miles) of pipeline is proposed. The existing pipeline, as shown on Topo D, will be upgraded to accommodate anticipated production from the proposed wells. The upgraded pipeline will follow the same route as the existing pipeline. Appropriate surface use agreements have been or will be obtained from the Ute Indian Tribe. Pipeline segments will be welded or zaplocked together on disturbed areas in or near the location, whenever possible, and dragged into place

Per the onsite meeting, the following items were requested:
- The equipment (new and old infrastructure) will be painted Shadow Grey.

- The existing pipeline will be moved off the damage area of the well pad.
- Diversion drainages will be constructed around the well pad.

5. Location and Type of Water Supply:
See MDP for additional details on Location and Type of Water Supply.

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

No water well is to be drilled on this lease.

6. Source of Construction Materials:
See MDP for additional details on Source of Construction Materials.

7. Methods of Handling Waste Materials:
See MDP for additional details on Methods of Handling Waste Materials.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E
NBU #159 in Sec. 35 T9S R21E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E

8. Ancillary Facilities:
See MDP for additional details on Ancillary Facilities.

None are anticipated.

9. Well Site Layout: (See Location Layout Diagram)
See MDP for additional details on Well Site Layout.

All pits will be fenced according to the following minimum standards:

- Net wire (39-inch) will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.
- Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.

- Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.
- All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

10. Plans for Reclamation of the Surface:
See MDP for additional details on Plans for Reclamation of the Surface.

Kerr-McGee shall call the BIA for the seed mixture prior to starting interim and/or final reclamation actions.

11. Surface/Mineral Ownership:
The well pad and access road are located on lands owned by:

Ute Indian Tribe
PO Box 70
Fort Duchesne, Utah 84026
435-722-5141

The mineral ownership is listed below:

United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
435-781-4400

12. Other Information:
See MDP for additional details on Other Information.

At the time the Paleo report was prepared, the following wells had the following well names:

NBU 921-23E1CS was fka NBU 921-23E1BS
NBU 921-23E4BS was fka NBU 921-23E1CS
NBU 921-23F4CS was fka NBU 921-23F4BS

13. Lessee's or Operators' Representative & Certification:

Kathy Schneebeck Dulnoan
Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6007

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720-929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Kathy Schneebeck Dulnoan

July 28, 2009
Date

’APIWellNo:43047506190000’

CLASS I REVIEW OF KERR-MCGEE OIL & GAS ONSHORE LP’S 51 PROPOSED WELL LOCATIONS (T9S, R21E, SECTIONS 7, 8, 10, 11, 12, 17, 18, 19, 20, 23, 25, AND 30) IN UINTAH COUNTY, UTAH

By:

Jacki A. Montgomery

Prepared For:

Ute Tribal Land
Uintah and Ouray Agency

Bureau of Land Management
Vernal Field Office

Prepared Under Contract With:

Kerr-McGee Oil & Gas Onshore LP
1368 South 1200 East
Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc.
P.O. Box 219
Moab, Utah 84532

MOAC Report No. 09-39

May 11, 2009

United States Department of Interior (FLPMA)
Permit No. 09-UT-60122

Public Lands Policy Coordination Office
Archaeological Survey Permit No. 117

Ute Tribal Permit No. A09-363

CLASS I REVIEW OF KERR-MCGEE OIL & GAS ONSHORE LP'S 50 PROPOSED WELL LOCATIONS IN T9S, R21E SECS. 19, 20, 21, 23, 28, 29 AND 30 UINTAH COUNTY, UTAH

By:

Jacki A. Montgomery

Prepared For:

Ute Tribal Land
Uintah and Ouray Agency

Bureau of Land Management
Vernal Field Office

Prepared Under Contract With:

Kerr-McGee Oil & Gas Onshore LP
1368 South 1200 East
Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc.
P.O. Box 219
Moab, Utah 84532

MOAC Report No. 09-11

February 23, 2009

United States Department of Interior (FLPMA)
Permit No. 08-UT-60122

Public Lands Policy Coordination Office
Archaeological Survey Permit No. 117

Ute Tribal Permit No. A08-363

Paleontological Assessment for Anadarko Petroleum Corporation NBU 921-23E4BS, E1CS, L1BS, F4BS Ouray SE Quadrangle Uintah County, Utah

Prepared for

Anadarko Petroleum Corporation
Granite Tower
1099 18th St. #1200
Denver, CO 80202

and

Ute Tribe
Energy and Minerals Department
P.O. Box 70
988 S. 7500 E., Annex Building
Fort Duchesne, UT 84026

Prepared by:

Benjamin John Burger, M.S., Justin J. Strauss, M.S., Paul C. Murphey, Ph.D.

SWCA Environmental Consultants
2028 West 500 North
Vernal, UT 84078
Phone: 435.789.9388
Fax: 435.789.9385
www.swca.com

SWCA #UT09-14314-37

Grasslands Consulting, Inc.

4800 Happy Canyon Road, Suite 110, Denver, CO 80237
(303) 759-5377 Office (303) 759-5324 Fax

SPECIAL STATUS PLANT AND WILDLIFE SPECIES REPORT

Report : GCI #34

Operator: Kerr-McGee Oil & Gas Onshore LP

Wells: NBU 921-23E Pad
(Bores: NBU 921-23E1CS, NBU 921-23E4BS, NBU 921-23L1BS, NBU 921-23F4CS)

Pipelines: N/A

Access Roads: N/A

Location: SW/NW Section 23, Township 9 South, Range 21 East; Uintah County, Utah

Survey-Species: Uinta Basin Hookless Cactus (*Sclerocactus wetlandicus*) and nesting raptors

Date: 06/17/2009

Observer(s): Grasslands Consulting, Inc. Biologists: Nick Hall, Dan Hamilton, Matt Kelahan, and Jonathan Sexauer. Technician: Chad Johnson.

Weather: Partly cloudy, 75-80ºF, 0-5 mph winds with no precipitation.

Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
DENVER, CO 80217-3779

June 9, 2009

Diana Mason
Utah Department of Oil, Gas & Mining
P.O. Box 145801
Salt Lake City, Utah 54114-6100

RE: Directional Drilling Letter R649-3-11
NBU 921-23E4BS
T9S-R21E
Section 23: SW/4NW/4 surface and bottom hole
2172' FNL, 530' FWL (surface)
2080' FNL, 665' FWL (bottom hole)
Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are herby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 921-23 E4BS is located within the Natural Buttes Unit Area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

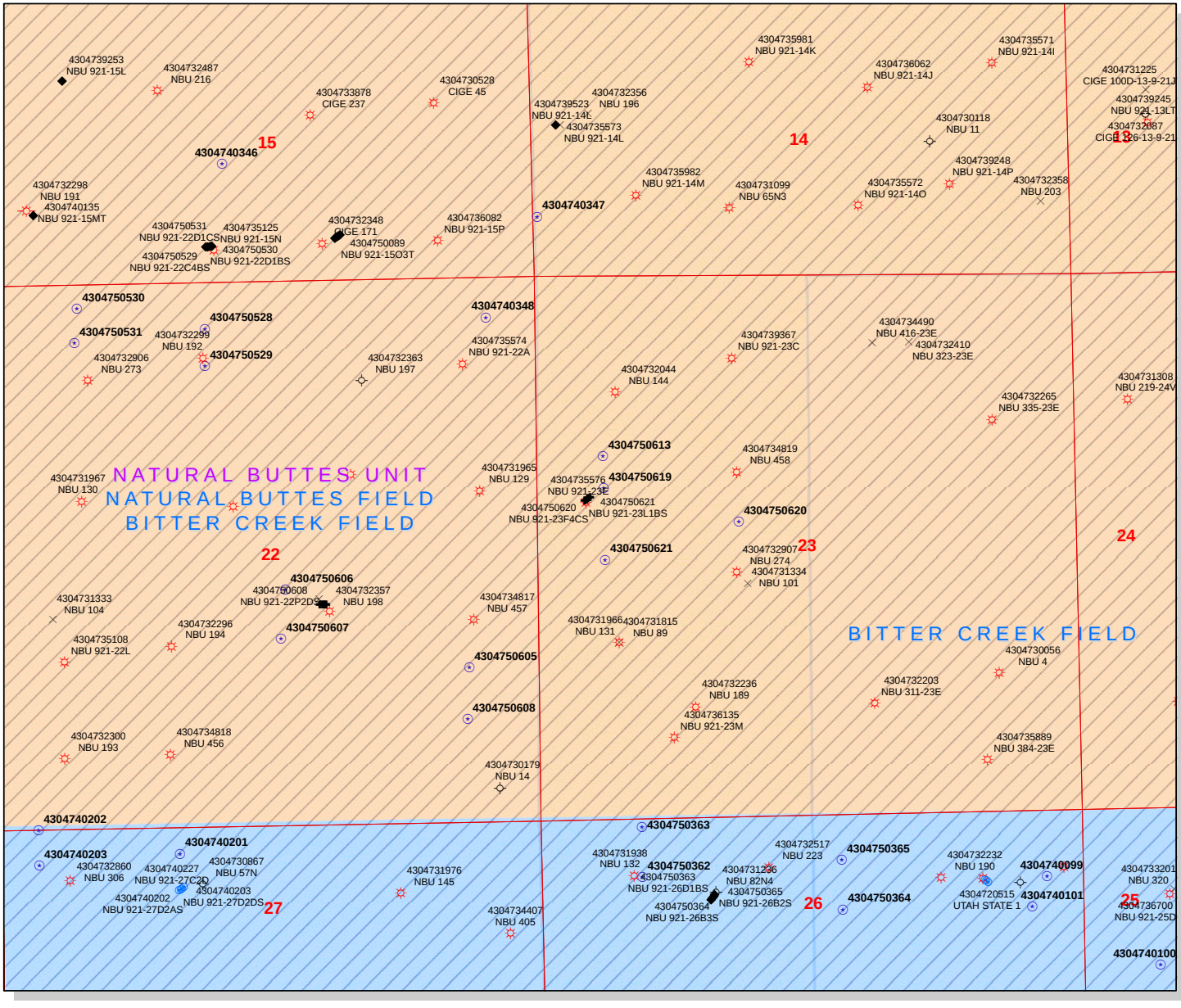
Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit to be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Joe Matney
Senior Staff Landman

'APIWellNo:43047506190000'



API Number: 4304750619

Well Name: NBU 921-23E4BS

Township 09.0 S Range 21.0 E Section 23

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason

Units

STATUS
- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields

STATUS
- ACTIVE
- COMBINED
- Sections

Wells Query Events
- <all other values>

GIS_STAT_TYPE
- <Null>
- APD
- DRL
- GI
- GS
- LA
- NEW
- OPS
- PA
- PGW
- POW
- RET
- SGW
- SOW
- TA
- TW
- WD
- WI
- WS

1,200 600 0 1,200 Feet

1:12,000

'APIWellNo:43047506190000'

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

August 7, 2009

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2009 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2009 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50613	NBU 921-23E1CS	Sec 23 T09S R21E 2192 FNL 0495 FWL BHL Sec 23 T09S R21E 1767 FNL 0665 FWL
43-047-50619	NBU 921-23E4BS	Sec 23 T09S R21E 2172 FNL 0530 FWL BHL Sec 23 T09S R21E 2080 FNL 0665 FWL
43-047-50620	NBU 921-23F4CS	Sec 23 T09S R21E 2182 FNL 0512 FWL BHL Sec 23 T09S R21E 2425 FNL 1985 FWL
43-047-50621	NBU 921-23L1BS	Sec 23 T09S R21E 2201 FNL 0477 FWL BHL Sec 23 T09S R21E 2520 FSL 0665 FWL
43-047-50623	NBU 921-28C1CS	Sec 28 T09S R21E 0642 FNL 0844 FWL BHL Sec 28 T09S R21E 0471 FNL 1985 FWL
43-047-50624	NBU 921-28C4BS	Sec 28 T09S R21E 0682 FNL 0844 FWL BHL Sec 28 T09S R21E 0845 FNL 1985 FWL
43-047-50625	NBU 921-28C4CS	Sec 28 T09S R21E 0702 FNL 0844 FWL BHL Sec 28 T09S R21E 1219 FNL 1985 FWL
43-047-50626	NBU 921-28D1BS	Sec 28 T09S R21E 0622 FNL 0844 FWL BHL Sec 28 T09S R21E 0241 FNL 0665 FWL

43-047-50627 NBU 920-21P Sec 21 T09S R20E 0281 FSL 0524 FEL

43-047-50628 NBU 920-21N Sec 21 T09S R20E 0460 FSL 1527 FWL

43-047-50629 NBU 920-21L Sec 21 T09S R20E 2139 FSL 0979 FWL

43-047-50630 NBU 920-21M Sec 21 T09S R20E 0734 FSL 0635 FWL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:8-7-09

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 8/3/2009 **API NO. ASSIGNED:** 43047506190000

WELL NAME: NBU 921-23E4BS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6007

CONTACT: Kathy Schneebeck-Dulnoan

PROPOSED LOCATION: SWNW 23 090S 210E **Permit Tech Review:** ☑

SURFACE: 2172 FNL 0530 FWL **Engineering Review:** ☑

BOTTOM: 2080 FNL 0665 FWL **Geology Review:** ☑

COUNTY: UINTAH

LATITUDE: 40.02289 **LONGITUDE:** -109.52580

UTM SURF EASTINGS: 625801.00 **NORTHINGS:** 4431129.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU 0149075 **PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE

SURFACE OWNER: 2 - Indian **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ☑ **PLAT**
- ☑ **Bond:** FEDERAL - WYB000291
- ☐ **Potash**
- ☑ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☑ **Water Permit:** Permit #43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ☑ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit: NATURAL BUTTES

- ☐ **R649-3-2. General**
- ☐ **R649-3-3. Exception**
- ☑ **Drilling Unit**

Board Cause No: Cause 173-14

Effective Date: 12/2/1999

Siting: 460' fr u bdry & uncomm. tract

- ☑ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:
3 - Commingling - ddoucet
4 - Federal Approval - dmason
15 - Directional - dmason
17 - Oil Shale 190-5(b) - dmason

JON M. HUNTSMAN, JR.
Governor
GARY R. HERBERT
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Permit To Drill

****

Well Name: NBU 921-23E4BS
API Well Number: 43047506190000
Lease Number: UTU 0149075
Surface Owner: INDIAN
Approval Date: 8/11/2009

Issued to:
KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:
Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:
This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:
In accordance with Board Cause No. 173-14, commingling the of production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:
State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

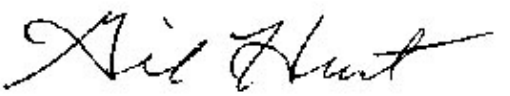
Notification Requirements:
The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)
  OR
  submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at http://oilgas.ogm.utah.gov

Reporting Requirements:
All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

Approved By:



Gil Hunt
Associate Director, Oil & Gas

API Well No: 43047506190000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE TR

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-23E4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047506190000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2172 FNL 0530 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 23 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 8/12/2010	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: August 23, 2010

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE		**DATE**
N/A		8/12/2010

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047506190000

API: 43047506190000
Well Name: NBU 921-23E4BS
Location: 2172 FNL 0530 FWL QTR SWNW SEC 23 TWNP 090S RNG 210E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 8/11/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Approved by the Utah Division of Oil, Gas and Mining

Signature: Danielle Piernot **Date:** 8/12/2010
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, LP

Date: August 23, 2010

By: Dustin Doucet

RECEIVED August 12, 2010

Form 3160-3
(August 2007)

RECEIVED
AUG 0 3 2009
BLM

FORM APPROVED
OMB No. 1004-0136
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
UTU0149075

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
NATURAL BUTTES

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☒ Multiple Zone

8. Lease Name and Well No.
NBU 921-23E4BS

2. Name of Operator
KERR MCGEE OIL&GAS ONSHORE LP
Contact: KATHY SCHNEEBECK DULNOAN
E-Mail: kathy.schneebeckdulnoan@anadarko.com

9. API Well No.
43-047-50619

3a. Address
PO BOX 173779
DENVER, CO 80217

3b. Phone No. (include area code)
Ph: 720-929-6007
Fx: 720-929-7007

10. Field and Pool, or Exploratory
NATURAL BUTTES

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface SWNW 2172FNL 530FWL 40.02287 N Lat, 109.52653 W Lon

At proposed prod. zone SWNW 2080FNL 665FWL 40.02312 N Lat, 109.52605 W Lon

11. Sec., T., R., M., or Blk. and Survey or Area
Sec 23 T9S R21E Mer SLB

14. Distance in miles and direction from nearest town or post office*
APPROXIMATELY 27 MILES SOUTHEAST OF OURAY, UT

12. County or Parish
UINTAH

13. State
UT

15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
APPROXIMATELY 665' TO LEASE LINE

16. No. of Acres in Lease
640.00

17. Spacing Unit dedicated to this well

18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.
APPROXIMATELY 315'

19. Proposed Depth
9956 MD
9950 TVD

20. BLM/BIA Bond No. on file
WYB000291

21. Elevations (Show whether DF, KB, RT, GL, etc.
4863 GL

22. Approximate date work will start
09/07/2009

23. Estimated duration
60-90 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature
(Electronic Submission)

Name (Printed/Typed)
KATHY SCHNEEBECK DULNOAN Ph: 720-929-6007

Date
08/03/2009

Title
STAFF REGULATORY ANALYST

Approved by (Signature)

Name (Printed/Typed)
James H. Sparger

Date
JAN 19 2011

Title
Acting Assistant Field Manager
Lands & Mineral Resources

Office
VERNAL FIELD OFFICE

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

UDOGM

Electronic Submission #72839 verified by the BLM Well Information System
For KERR MCGEE OIL&GAS ONSHORE LP, sent to the Vernal
Committed to AFMSS for processing by GAIL JENKINS on 08/06/2009 ()

NOTICE OF APPROVAL

CONDITIONS OF APPROVAL ATTACHED

NOS APD POSTED 8-10-09

RECEIVED
FEB 01 2011
DIV. OF OIL, GAS & MINING

AFMSS# 096XJ5677AE

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED

096XJ5677AE NO NOS

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE
170 South 500 East VERNAL, UT 84078 (435) 781-4400

CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company:	**Kerr McGee Oil & Gas Onshore LP**	**Location:**	**SWNW, Sec.23, T9S R21E**
Well No:	**NBU 921-23E4BS**	**Lease No:**	**UTU-0149075**
API No:	**43-047-50619**	**Agreement:**	**Natural Buttes**

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: ut_vn_opreport@blm.gov.
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.

- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.

- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.

- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.

Site-Specific Conditions of Approval:

- Paint new and old (existing) facilities "Shadow Gray."

- Move existing pipeline off the damaged area of the well pad.

- Construct diversion ditches around the well pad.

- In accordance with the guidelines specified in the Utah BLM Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002 (See Appendix D), a raptor survey should be conducted prior to expansion of the well pad or pipeline upgrade if construction would take place during raptor nesting season (January 01 through September 30) and conduct its operations according to specifications in the guidelines.

- If project construction operations are not initiated before June 17, 2010, KMG should conduct additional biological surveys in accordance with the guidelines specified in the USFWS Rare Plant Conservation Measures for Uinta Basin hookless cactus (See Appendix D) and conduct its operation according to its specifications.

BIA Standard Conditions of Approval:

- Soil erosion will be mitigated by reseeding all disturbed areas.

- The gathering pipelines will be constructed to lie on the surface. The surface pipelines will not be bladed or cleared of vegetation. Where pipelines are constructed parallel to roads they may be welded on the road and then lifted from the road onto the right-of-way. Where pipelines do not parallel roads but cross-country between sites, they shall be welded in place at well sites or on access roads and then pulled between stations with a suitable piece of equipment. Traffic will be restricted along these areas so that the pipeline right-of-way will not be used as an access road.

- An open drilling system shall be used, unless otherwise specified in 10.0 Additional Stipulations of this document and in the Application for Permit to Drill. A closed drilling system shall be used in all flood plain areas, and other highly sensitive areas, recommended by the Ute Tribe Technician, BIA, and other agencies involved.

- The reserve pit shall be lined with a synthetic leak proof liner. After the drilling operation is complete, excess fluids shall be removed from the reserve pit and either hauled to an approved disposal site or shall be used to drill other wells. When the fluids are removed the pit shall be backfilled a minimum of 3.0' below the soil surface elevation.

- A closed production system shall be used. This means all produced water and oil field fluid wastes shall be contained in leak proof tanks. These fluids shall be disposed of in either approved injection wells or disposal pits.

- Major low water crossings will be armored with pit run material to protect them from erosion.

- All personnel should refrain from collecting any paleontological fossils and from disturbing any fossil resources in the area.

- If fossils are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.

- Before the site is abandoned the company will be required to restore the right-of-way to near its original state. The disturbed area will be reseeded with desirable perennial vegetation. If necessary, the Bureau of Indian Affairs or Bureau of Land Management will provide a suitable seed mixture.

- Noxious weeds will be controlled on all surface disturbances within the project area. If noxious weeds spread from the project area onto adjoining land, the company will also be responsible for their control.

- If project construction operations are scheduled to occur after December 31, 2009, KMG should conduct annual raptor surveys in accordance with the guidelines specified in the Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002 (See appendix D) and conduct its operation according to applicable seasonal restriction and spatial offsets.

- USFWS threatened and endangered plant and animal conservation measures will be followed, as appropriate to the species identified by the biological resource survey (See Appendix D).

- All personnel should refrain from collecting artifacts and from disturbing any significant cultural resources in the area.

- If artifacts or any culturally sensitive materials are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.

DOWNHOLE PROGRAM
CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COA's:

Gamma Ray Log shall be run from Total Depth to Surface.

Variances Granted

Air Drilling:

- Properly lubricated and maintained rotating head, variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore, variance granted for blooie line discharge to be 45' from the well bore.
- Variance granted for two truck/trailer mounted air compressors located within 40 feet from the well bore and 60' from the blooie line.
- Mud Material Requirements. In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for kill fluid.
- Automatic igniter. Variance granted for igniter due to there being no productive formations while drilling with air.
- FIT test. Variance granted due to well geology and problems that can occur with FIT test.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.

- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.

- No aggressive/fresh hard-banded drill pipe shall be used within casing.

- **Cement baskets shall not be run on surface casing.**

- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.

- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.

- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.

- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

- **Please submit an electronic copy of all other logs run on this well in LAS format to UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**

- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.

- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:

    - Operator name, address, and telephone number.
    - Well name and number.
    - Well location (¼¼, Sec., Twn, Rng, and P.M.).
    - Date well was placed in a producing status (date of first production for which royalty will be paid).
    - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
    - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
    - Unit agreement and/or participating area name and number, if applicable.
    - Communitization agreement number, if applicable.

- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.

- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.

- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4.

Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.

- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.

- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.

- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.

- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.

- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.

- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

SUBMIT AS EMAIL | Print Form

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
Submitted By SHEILA WOPSOCK Phone Number 435.781.7024
Well Name/Number NBU 921-23E4BS
Qtr/Qtr SWNW Section 23 Township 9S Range 21E
Lease Serial Number UTU-0149075
API Number 4304750619

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 06/03/2011 0800 HRS AM ☑ PM ☐

Casing – Please report time casing run starts, not cementing times.

- ☑ Surface Casing
- ☐ Intermediate Casing
- ☐ Production Casing
- ☐ Liner
- ☐ Other

RECEIVED
JUN 02 2011
DIV. OF OIL, GAS & MINING

Date/Time 06/19/2011 0800 HRS AM ☑ PM ☐

BOPE

- ☐ Initial BOPE test at surface casing point
- ☐ BOPE test at intermediate casing point
- ☐ 30 day BOPE test
- ☐ Other

Date/Time _____ _____ AM ☐ PM ☐

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT ~~KENNY GATHINGS AT 435.781.7048 FOR MORE~~

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE TR

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-23E4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047506190000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2172 FNL 0530 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 23 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
✓ SPUD REPORT Date of Spud: 6/4/2011	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'. RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD WELL ON 06/04/2011 AT 0700 HRS.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Sheila Wopsock	435 781-7024	Regulatory Analyst
SIGNATURE N/A		**DATE** 6/9/2011

RECEIVED Jun. 09, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE TR

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-23E4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047506190000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2172 FNL 0530 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 23 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 6/26/2011	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU AIR RIG ON JUNE 23, 2011. DRILLED SURFACE HOLE TO 2780'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 6/27/2011

RECEIVED Jun. 27, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP
Operator Account Number: N 2995
Address: P.O. Box 173779
city DENVER
state CO zip 80217
Phone Number: (720) 929-6100

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750619	NBU 921-23E4BS		SWNW	23	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	6/4/2011			6/22/11	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 6/4/2011 AT 07:00 HRS. BHL = SWNW

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750620	NBU 921-23F4CS		SWNW	23	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	6/4/2011			6/22/11	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 6/4/2011 AT 11:00 HRS. BHL = SENW

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750613	NBU 921-23E1CS		SWNW	23	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	6/4/2011			6/22/11	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 6/4/2011 AT 13:00 HRS. BHL = SWNW

ACTION CODES:

- **A** - Establish new entity for new well (single well only)
- **B** - Add new well to existing entity (group or unit well)
- **C** - Re-assign well from one existing entity to another existing entity
- **D** - Re-assign well from one existing entity to a new entity
- **E** - Other (Explain in 'comments' section)

ANDY LYTLE
Name (Please Print)

Signature

REGULATORY ANALYST
Title

6/7/2011
Date

RECEIVED
JUN 07 2011
DIV. OF OIL, GAS & MINING

(5/2000)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE TR

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-23E4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047506190000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2172 FNL 0530 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 23 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
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	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 8/3/2011	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU ROTARY RIG. FINISHED DRILLING FROM 2780' TO 10,025' ON AUGUST 1, 2011. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING TO 9585'. RAN 4 ½" 11.6# P110 CSG FROM 9585' TO 10,012'. CEMENTED PRODUCTION CASING. RELEASED ENSIGN RIG 146 ON AUGUST 3, 2011 @ 21:30 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 8/4/2011

RECEIVED Aug. 04, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE TR

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-23E4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047506190000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2172 FNL 0530 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 23 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 8/3/2011	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU ROTARY RIG. FINISHED DRILLING FROM 2780' TO 10,025' ON AUGUST 1, 2011. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING TO 9585'. RAN 4 ½" 11.6# P110 CSG FROM 9585' TO 10,012'. CEMENTED PRODUCTION CASING. RELEASED ENSIGN RIG 146 ON AUGUST 3, 2011 @ 21:30 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 8/4/2011

RECEIVED Aug. 04, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-23E4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047506190000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2172 FNL 0530 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 23 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	✓ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 10/12/2011	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 10/12/2011 AT 1300 HRS. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Sheila Wopsock	435 781-7024	Regulatory Analyst
SIGNATURE N/A		**DATE** 10/14/2011

RECEIVED Oct. 14, 2011

Form 3160-4
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. UTU0149075

1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No. UTU63047A

2. Name of Operator KERR MCGEE OIL & GAS ONSHORE LP — Contact: JAIME L. SCHARNOWSKE — E-Mail: JAIME.SCHARNOWSKE@ANADARKO.COM

8. Lease Name and Well No. NBU 921-23E4BS

3. Address PO BOX 173779 DENVER, CO 80217

3a. Phone No. (include area code) Ph: 720-929-6304

9. API Well No. 43-047-50619

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface SWNW 2172FNL 530FWL 40.022868 N Lat, 109.526528 W Lon

At top prod interval reported below SWNW 2067FNL 667FWL

At total depth SWNW 2065FNL 662FWL BHL by HSM

10. Field and Pool, or Exploratory NATURAL BUTTES

11. Sec., T., R., M., or Block and Survey or Area Sec 23 T9S R21E Mer SLB

12. County or Parish UINTAH

13. State UT

14. Date Spudded 06/04/2011

15. Date T.D. Reached 08/01/2011

16. Date Completed ☐ D & A ☒ Ready to Prod. 10/12/2011

17. Elevations (DF, KB, RT, GL)* 4862 GL

18. Total Depth: MD 10025 TVD 10018

19. Plug Back T.D.: MD 9968 TVD 9961

20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
HDIL/ZDL/CNGR-CBL/VDL/GR/CCL-CMI/GR/CCL

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
20.000	14.000 STL	36.7	0	40		28			
12.250	9.625 J-55	40.0	0	2758		660		0	
7.875	4.500 I-80	11.6	0	9585		1863		884	
7.875	4.500 P-110	11.6	9585	10012					

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.375	9235							

25. Producing Intervals / 26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) MESAVERDE	7820	9814	7820 TO 9814	0.360	167	OPEN
B) WSMVD						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
7820 TO 9814	PUMP 6,394 BBLS SLICK H2O & 119,483 LBS 30/50 OTTAWA SAND

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
10/12/2011	10/19/2011	24	→	0.0	2373.0	600.0			FLOWS FROM WELL

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
20/64	1266 SI	1635.0	→	0	2373	600		PGW

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

RECEIVED
NOV 22 2011
DIV. OF OIL, GAS & MINING

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #123227 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

29. Disposition of Gas *(Sold, used for fuel, vented, etc.)*
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
				GREEN RIVER	1595
				BIRD'S NEST	1903
				MAHOGANY	2280
				WASATCH	4935
				MESAVERDE	7801

32. Additional remarks (include plugging procedure):
Attached is the chronological well history, perforation report & final survey.

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.)
2. Geologic Report
3. DST Report
4. Directional Survey
5. Sundry Notice for plugging and cement verification
6. Core Analysis
7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #123227 Verified by the BLM Well Information System.
For KERR MCGEE OIL & GAS ONSHORE,L, sent to the Vernal

Name *(please print)* JAIME L. SCHARNOWSKE Title REGULATORY ANALYST

Signature (Electronic Submission) Date 11/14/2011

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-23E4BS RED	Spud Conductor: 6/4/2011	Spud Date: 6/23/2011
Project: UTAH-UINTAH	Site: NBU 921-23E PAD	Rig Name No: ENSIGN 146/146, PROPETRO 11/11
Event: DRILLING	Start Date: 5/25/2011	End Date: 8/3/2011
Active Datum: RKB @4,876.00usft (above Mean Sea Level)	UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2,172.00/W/0/530.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/23/2011	9:30 - 14:30	5.00	MIRU	01	A	P		MOVE RIG IN OFF THE NBU 1022-7D4CS
	14:30 - 16:30	2.00	MIRU	01	B	P		UNLOAD TRUCKS,DRESS TOP OF INSTALL DIVERTER HEAD AND BLOOIE LINE. BUILD DITCH. MOVE RIG OVER HOLE AND RIG UP.. SET CATWALK AND PIPE RACKS. RIG UP AND PRIME PIT PUMP AND MUD PUMP.
	16:30 - 17:00	0.50	DRLSUR	06	A	P		P/U 1.83 DEG BENT HOUSING HUNTING MTR SN 8065 . 7/8 LOBE .17 RPM. M/U 12.25" Q507 SN 7135341 1ST RUN, W/ 7-18'S. INSTALL RUBBER
	17:00 - 18:00	1.00	DRLSUR	02	B	P		SPUD SURFACE 06/23/2011 @ 17:00 HRS. DRILL 12.1/4" SURFACE HOLE F/40'-150' (110' @ 110'/HR) PSI ON/ OFF 500/350, UP/ DOWN/ ROT 25/18/20. 532 GPM, 45 RPM ON TOP DRIVE,90 RPM ON MM, 15-18K WOB
	18:00 - 0:00	6.00	ALL	08	B	Z		MUD PUMP MOTOR DOWN,WAIT ON MECHANIC & BACKUP MUD PUMP
6/24/2011	0:00 - 2:30	2.50	ALL	08	B	Z		RIG UP BACK UP MUD PUMP
	2:30 - 3:00	0.50	DRLSUR	02	B	P		DRILL 12.1/4" SURFACE HOLE F/150'-210' (60' @ 120'/HR) PSI ON/ OFF 700/450, UP/ DOWN/ ROT 27/22/25. 532 GPM, 45 RPM ON TOP DRIVE,90 RPM ON MM, 15-18K WOB
	3:00 - 3:30	0.50	DRLSUR	06	A	P		TOH T/P/U DIR. TOOLS
	3:30 - 4:30	1.00	DRLSUR	06	A	P		P/U DIR. TOOLS & SCRIBE,TIH T/210'
	4:30 - 15:30	11.00	DRLSUR	02	D	P		DRILL/ SLIDE 12 1/4" SURFACE HOLE F/210' T/ 1370' (1160' @ 105'/HR)PSI ON/OFF,1390/1220 UP/ DOWN/ ROT 60/50/50, 130 SPM, 532 GPM, 18-20K WOB, 45 RPM ON TOP DRIVE,90 RPM ON MM, CIRCULATING RESERVE PIT
	15:30 - 0:00	8.50	DRLSUR	02	D	P		DRILL/ SLIDE 12 1/4" SURFACE HOLE F/1370' T/ 1940' (570' @ 71'/HR)PSI ON/OFF,1620/1370 UP/ DOWN/ ROT 72/62/70, 130 SPM, 532 GPM, 18-20K WOB, 45 RPM ON TOP DRIVE,90 RPM ON MM, CIRCULATING RESERVE PIT
6/25/2011	0:00 - 6:00	6.00	DRLSUR	02	D	P		DRILL/ SLIDE 12 1/4" SURFACE HOLE F/1940' T/ 2390' (450' @ 75'/HR)PSI ON/OFF,1760/1540 UP/ DOWN/ ROT 77/62/70, 130 SPM, 532 GPM, 18-20K WOB, 45 RPM ON TOP DRIVE,90 RPM ON MM, CIRCULATING RESERVE PIT
	6:00 - 13:00	7.00	DRLSUR	02	D	P		DRILL/ SLIDE 12 1/4" SURFACE HOLE F/2390' T/ 2780' (390' @ 58'/HR)PSI ON/OFF,1850/1620 UP/ DOWN/ ROT 80/70/75, 130 SPM, 532 GPM, 18-20K WOB, 45 RPM ON TOP DRIVE,90 RPM ON MM, CIRCULATING RESERVE PIT
	13:00 - 15:00	2.00	DRLSUR	05	C	P		CIRC & COND HOLE F/LD & 9 5/8" 40# SURF. CSG RUN
	15:00 - 19:00	4.00	DRLSUR	06	D	P		LAY DOWN DRILLSTRING,BHA & DIR TOOLS
	19:00 - 20:00	1.00	CSG	12	A	P		MOVE CATWALK AND PIPE RACKS,MOVE CSG OVER TO WORK AREA,R/U T/RUN 9 5/8" 40# SURF. CSG

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-23E4BS RED	Spud Conductor: 6/4/2011	Spud Date: 6/23/2011
Project: UTAH-UINTAH	Site: NBU 921-23E PAD	Rig Name No: ENSIGN 146/146, PROPETRO 11/11
Event: DRILLING	Start Date: 5/25/2011	End Date: 8/3/2011
Active Datum: RKB @4,876.00usft (above Mean Sea Level)	UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2,172.00/W/0/530.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	20:00 - 0:00	4.00	CSG	12	C	P		HOLD SAFTEY MEETING,RUN FLOAT SHOE ,SHOE JNT,BAFFLE & 64 JNTS 9 5/8" 40# LT&C CSG W/THE SHOE SET @2748' & THE BAFFLE @2703'
6/26/2011	0:00 - 1:00	1.00	CSG	12	B	P		RUN 200' 1" PIPE DOWN ANNULUS,INSTALL CEMENT HEAD,R/U PRO PETRO CEMENTERS
	1:00 - 2:30	1.50	CSG	12	E	P		HOLD SAFETY MEETING. TEST LINES TO 2000 PSI. PUMP 30 BBLS OF 8.4# H20 AHEAD,FULL RETURNS PUMP 20 BBLS OF 8.4# GEL WATER AHEAD. PUMP 250 SX(170 BBLS) 11# 3.82 YIELD LEAD CEMENT, PUMP 200 SX (41 BBLS) OF 15.8# 1.15 YIELD TAIL(2% CALC, 1/4# /SK OF FLOCELE).DROP PLUG ON FLY AND DISPLACE W201 BBLS OF 8.4# H20. LIFT PRESSURE WAS 540 PSI, BUMP PLUG AND HOLD 1040 PSI FOR 5 MIN. FLOAT HELD,FULL RETURNS THRU OUT JOB ,30 BBLS LEAD CEMENT TO SURF,CEMENT FELL BACK
	2:30 - 3:00	0.50	CSG	12	F	P		TOP OUT THRU 1" PIPE W/125 SKS 15.8 PPG,CLASS "G" CEMENT W/4% CACL2 & 1/4#/SK FLOCELE, CEMENT TO SURF(CEMENT FELL BACK)
	3:00 - 4:30	1.50	CSG	13	A	P		WAIT ON CEMENT
	4:30 - 5:00	0.50	CSG	12	B	P		TOP OUT W/85 SKS 15.8 PPG ,CLASS "G" CEMENT W/4% CACL2 & 1/4#/SK FLOCELE, CEMENT TO SURF,STAYED @ SURF. (RIG RELEASED @ 05:00 06/26/2011)
	5:00 - 5:00	0.00	CSG					CONDUCTOR CASING: Cond. Depth set:40' Cement sx used:28 SPUD DATE/TIME:6/23/2011 17:00 SURFACE HOLE: Surface From depth:40' Surface To depth:2,780 Total SURFACE hours:34.00 Surface Casing size:9 5/8" 40# # of casing joints ran:64 Casing set MD:2,748.0 # sx of cement:250/200/210 Cement blend (ppg:)11.0/15.8/15.8 Cement yield (ft3/sk):3.82/1.15/1.15 # of bbls to surface: Describe cement issues:NONE Describe hole issues:NONE
7/24/2011	17:00 - 0:00	7.00	RDMO	01	E	P		RIG DOWN - PREPARE TO MOVE RIG
7/25/2011	0:00 - 6:00	6.00	RDMO	01	E	P		RIG DOWN PREPARE TO MOVE RIG
	6:00 - 15:00	9.00	MIRU	01	A	P		MOVE AND SET IN RIG - 100 % SET IN (JONES ON LOCATION @ 06:00 9 TRUCKS, 2 FORKLIFTS - OFF LOCATION @ 15:00)
	15:00 - 0:00	9.00	MIRU	01	B	P		RIGGING UP - DERRICK RAISED @ 18:00 hrs - CONTINUE RIGGING UP - 75% RIGGED UP @ REPORT TIME
7/26/2011	0:00 - 6:00	6.00	MIRU	01	B	P		RIGGING UP
	6:00 - 9:00	3.00	DRLPRO	14	A	P		N/UP BOPE, FLOW LINE, PANIC & FLARE LINE

Operation Summary Report

Well: NBU 921-23E4BS RED	Spud Conductor: 6/4/2011	Spud Date: 6/23/2011
Project: UTAH-UINTAH	Site: NBU 921-23E PAD	Rig Name No: ENSIGN 146/146, PROPETRO 11/11
Event: DRILLING	Start Date: 5/25/2011	End Date: 8/3/2011
Active Datum: RKB @4,876.00usft (above Mean Sea Level)	UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2,172.00/W/0/530.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	9:00 - 14:30	5.50	DRLPRO	15	A	P		TEST BOPE, RAMS, CHOKE, CHOKE LINE, MANUAL VALVES, FLOOR VALVES, HCR & IBOP 250 LOW 5000 HIGH, ANNULAR 250 LOW 2500 HIGH, CASING 1500 (KILL LINE CHECK VALVE CAP LEAKING - HYD LEAK ON KOOMEY LINES)
	14:30 - 15:00	0.50	DRLPRO	14	B	P		INSTALL WEARBUSHING
	15:00 - 20:00	5.00	DRLPRO	06		P		P/UP BIT #1 Q506F, MUD MOTOR HUNTING .21 RPG 1.80 deg, SCRIBE & ORIENT, P/UP SINGLES HWDP & DP RIH TAG CEMENT @ 2629'
	20:00 - 21:30	1.50	DRLPRO	07	B	P		CENTER & LEVEL DERRICK - INSTALL ROTATING HEAD
	21:30 - 23:00	1.50	DRLPRO	02	F	P		DRILL CEMENT, FE & RATHOLE F/2629' TO 2790'
	23:00 - 0:00	1.00	DRLPRO	02	D	P		DRILL/SLIDE F/2790' TO 2950' (160' @ 160fph) MW 8.4, VIS27, WOB 20, RPM 45, MM RPM 108, TQ 6/7, SPM 105, GPM 515, PSI OFF/ON 1250/1600, PU 120, SO 112, ROT 115 (ROT 100%)
7/27/2011	0:00 - 11:00	11.00	DRLPRO	02	D	P		DRILL/SLIDE F/2950' TO 4262' (1312' @ 120fph) MW 8.4, VIS 27, WOB 20, RPM 45, MM RPM 108, TQ 6/7, SPM 105, GPM 515, PSI OFF/ON 1375/1750, PU 138, SO 126, ROT 130, SLIDE 3310 3324, 3401 3415, 3945 3960 (SLIDE 43'/.66 hrs 6% - ROT 1269'/10.34 hrs 94%)
	11:00 - 11:30	0.50	DRLPRO	07	A	P		RIG SER
	11:30 - 0:00	12.50	DRLPRO	02	D	P		DRILL/SLIDE F/4262' TO 5670' (1408' @ 113fph) MW 8.4, VIS 27, WOB 20, RPM 45, MM RPM 108, TQ 6/7, SPM 105, GPM 515, PSI OFF/ON 1600/1950, PU 175, SO 140, ROT 154, SLIDE 4398 4413, 4761 4776, 5305 5320 (SLIDE 30'/.50 hrs 4% - 1378'/12 hrs 96%)
7/28/2011	0:00 - 15:00	15.00	DRLPRO	02	D	P		DRILL/SLIDE F/5670' TO 6981' (1311' @ 88fph) MW 8.9, VIS 28, WOB 20, RPM 45, MM RPM 108, TQ 7/9, SPM 105, GPM 515, PSI OFF/ON 1575/1935, PU 195, SO 160, ROT 173, SLIDE 6483 6498, 6574 6589, 6664 6679, 6755 6765, 6846 6861, 6936 6946 (SLIDE 80'/3.25 hrs 21% - ROT 1231'/11.75 hrs 79%)
	15:00 - 15:30	0.50	DRLPRO	07	A	P		RIG SER
	15:30 - 0:00	8.50	DRLPRO	02	A	P		DRILL/SLIDE F/6981' TO 7350' (369' @ 43fph) MW 8.6, VIS 31, WOB 20, RPM 45, MM RPM 108, TQ 7/10, SPM 105, GPM 515, PSI OFF/ON 1670/2000, PU 210, SO 155, ROT 179, SLIDE 7027 7037, (SLIDE 10'/.50 hrs 5% - ROT 359'/8 hrs 95%) - MUD UP SYSTEM @ 7000'
7/29/2011	0:00 - 11:00	11.00	DRLPRO	02	D	P		DRILL/SLIDE F/7350' TO 7888' (538' @ 49fph) MW 9.6, VIS 33, WOB 20, RPM 35, MM RPM 100, TQ 7/9, SPM 98, GPM 480, PSI OFF/ON 1680/2050, PU 202, SO 163, ROT 183, SLIDE 7480 7492, 7616 7626 (SLIDE 22'/1 hr 9% - ROT 516'/10 hrs 91%)
	11:00 - 11:30	0.50	DRLPRO	07	A	P		RIG SER
	11:30 - 0:00	12.50	DRLPRO	02	D	P		DRILL/SLIDE F/7888' TO 8385' (497' @ 40fph) MW 10.4, VIS 34, WOB 22, RPM 35, MM RPM 100, TQ 7/10, SPM 98, GPM 480, PSI OFF/ON 1900/2225, PU 230, SO 160, ROT 184, SLIDE 8024 8034 (SLIDE 8'/1 hr 8% - ROT 489'/11.5 hrs 92%)

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-23E4BS RED	Spud Conductor: 6/4/2011	Spud Date: 6/23/2011
Project: UTAH-UINTAH	Site: NBU 921-23E PAD	Rig Name No: ENSIGN 146/146, PROPETRO 11/11
Event: DRILLING	Start Date: 5/25/2011	End Date: 8/3/2011
Active Datum: RKB @4,876.00usft (above Mean Sea Level)	UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2,172.00/W/0/530.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
7/30/2011	0:00 - 14:00	14.00	DRLPRO	02	D	P		DRILL/SLIDE F/8385' TO 8930' (545' @ 39fpbh) MW 11.0, VIS 34, WOB 22, RPM 35, MM RPM 100, TQ 7/10, SPM 98, GPM 480, PSI OFF/ON 2250/2500, PU 215, SO 171, ROT 193, SLIDE 8386 8394, 8477 8482, 8568 8578, 8749 8757, 8840 8872 (SLIDE 63'/5.8 hrs 41% - ROT 482'/8.2 hrs 59%)
	14:00 - 14:30	0.50	DRLPRO	07	A	P		RIG SER
	14:30 - 0:00	9.50	DRLPRO	02	D	P		DRILL/SLIDE F/8930' TO 9195' (265' @ 28fph) MW 11.5, VIS 35, LCM 5%, WOB 22, RPM 35, MM RPM 100, TQ 7/11, SPM 98, GPM 480, PSI OFF/ON 2300/2575, P;U 240, SO 170, ROT 194 (ROT 100%) (BYPASSED SHAKERS @ 9050 - SEEPING MUD MIX LCM TO 5%)
7/31/2011	0:00 - 11:30	11.50	DRLPRO	02	D	P		DRILL/SLIDE F/9195' TO 9516' (321' @ 28fph) MW 11.8, VIS 36, LCM 5%, WOB 24, RPM 35, MM RPM 100, TQ 7/10, SPM 98, GPM 480, PSI OFF/ON 2325/2750, PU 229, SO 179, ROT 199 (ROT 100%)
	11:30 - 12:00	0.50	DRLPRO	07	A	P		RIG SER
	12:00 - 0:00	12.00	DRLPRO	02	D	P		DRILL/SLIDE F/9516' TO 9815' (299' @ 25fph) MW 12.2, VIS 38, LCM 30%, WOB 24, RPM 35, MM RPM 100, TQ 7/11, SPM 98, GPM 480, PSI OFF/ON 2300/2550, PU 240, SO 150, ROT 198 (ROT 100%) (HEAVY SEEPAGE @ 9705' LOST 200 BBLS - RAISE LCM TO 30%)
8/1/2011	0:00 - 2:00	2.00	DRLPRO	02	D	P		DRILL/SLIDE F/9815' TO 9828' (13' @ 6.5fph) MW 12.2, VIS 38, LCM 30%, WOB 24, RPM 35, MM RPM 100, TQ 7/11, SPM 98, GPM 480, PSI OFF/ON 2300/2550, PU 240, SO 150, ROT 198
	2:00 - 10:00	8.00	DRLPRO	06	A	P		TRIPPING FOR NEW BIT & MUD MOTOR - PULLED OFF BOTTOM NO BACKREAMING - NO PROBLEMS ON TRIP OUT - L/DN BIT #1 Q506F & HUNTING MUD MOTOR - BIT GRADE DBR - UNDER GAUGE 1/8"
	10:00 - 12:00	2.00	DRLPRO	06	A	P		P/UP BIT #2 & HUNTING .16 RPG 1.50 deg MUD MOTOR, RIH BHA TO 1046'- CIRC THRU STRING
	12:00 - 13:00	1.00	DRLPRO	08	A	Z		REPLACE GRABBER DIES IN PIPE HANDLER/TOP DRIVE
	13:00 - 20:00	7.00	DRLPRO	06	A	P		CONTINUE RIH TO 9567' - WASH FOR UNDER GAGE HOLE F/9567' TO 9828' - (BREAKING CIRC @ 2800' & 6526') (TIGHT @ 4800', 6400') - (LOST 20 BBLS MUD ON TRIP)
	20:00 - 0:00	4.00	DRLPRO	02	D	P		DRILL/SLIDE F/9828' TO 10,025' (197' @ 49fph) MW 12.2, VIS 38, LCM 15%, WOB 20, RPM 35, MM RPM 76, TQ 6/8, SPM 98, GPM 480, PSI OFF/ON 2525/2750, PU 250, SO 180, ROT 204 (ROT 100%)
8/2/2011	0:00 - 1:30	1.50	DRLPRO	05	C	P		CIRC
	1:30 - 12:30	11.00	DRLPRO	06	E	P		POOH WIPER TRIP TO 9 5/8" CASING @ 2758' - TIGHT @ 6450' & 4800' ON TRIP OUT - TRIP IN TO 4800' - WASH THRU TIGHT SPOT @ 4800', CONTINUE RUN IN TO 6600' BREAK CIRC - RUN IN FROM 6600' TO 9975' - WASH F/9975' TO 10,025'
	12:30 - 14:00	1.50	DRLPRO	05	C	P		CIRC
	14:00 - 21:30	7.50	DRLPRO	06	B	P		TRIP OUT FOR OPEN HOLE LOGS - NO HOLE PROBLEMS ON TRIP OUT OF HOLE
	21:30 - 22:00	0.50	DRLPRO	14	B	P		RETRIEVE WEARBUSHING

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-23E4BS RED	Spud Conductor: 6/4/2011	Spud Date: 6/23/2011	
Project: UTAH-UINTAH	Site: NBU 921-23E PAD		Rig Name No: ENSIGN 146/146, PROPETRO 11/11
Event: DRILLING	Start Date: 5/25/2011		End Date: 8/3/2011
Active Datum: RKB @4,876.00usft (above Mean Sea Level)	UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2,172.00/W/0/530.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	22:00 - 0:00	2.00	DRLPRO	11	D	P		HELD PRE JOB SAFETY MEETING (HPJSM) - R/UP BAKER ATLAS & RUN TRIPLE COMBO TO LOGGERS TD @ 10,025'
8/3/2011	0:00 - 3:00	3.00	EVALPR	11	D	P		RUN TRIPLE COMBO TO LOGGERS TD @ 10,025' - LOG OUT
	3:00 - 13:30	10.50	CSG	12	C	P		HPJSM, R/UP FRANKS & RUN 10 JTS 4.5" P110 11.60 BTC, 228 JTS I-80 11.60 BTC & 2 MKR JTS - FLOAT SHOE 10.012', FLOAT COLLAR 9966', MESAVERDE MKR 7768', WASATCH MKR 4902'
	13:30 - 14:30	1.00	CSG	08	A	Z		LOST COMMUNICATION WITH ALL PLC'S - TROUBLESHOOT - FOUND CUT PLC CABLE ON CATWALK
	14:30 - 15:30	1.00	CSG	05	D	P		CIRC CASING PRIOR TO CEMENTING
	15:30 - 18:30	3.00	CSG	12	E	P		HPJSM, R/UP BJ & CEMENT 4.5" PROD CASING, TEST LINES 5000 PSI, PUMP 15 BBLS FRESH WATER, 10 BBLS 20 SKS SCAVENGER 11.2 PPG 2.93 YIELD, 625 SKS LEAD 12.2 PPG 2.17 YIELD, TAIL 1238 SKS 14.3 PPG, 1.31 YIELD, DROPPED PLUG & DISPLACED W/155 BBLS FRESH WATER W/0.1 gal/bbl CLAYFIX II & 0.01 gal/bbl ALDACIDE G @ 2860 PSI, BUMPED PLUG @ 3400 PSI - FLOATS HELD W/2.0 BBLS RETURN, GOOD RETURNS DURING CMT JOB W/15 BBLS CEMENT TO SURFACE - 10 BBLS SCAVENGER & 5 BBLS LEAD CEMENT- R/DN BJ
	18:30 - 19:00	0.50	CSG	12	C	P		SET C-22 SLIPS WITH 100K STRING WEIGHT WITH WEATHERFORD REP JAMMI COX
	19:00 - 21:30	2.50	CSG	14	A	P		NIPPLE DOWN BOP, ROUGH CUT 4.5" PROD CASING - LAYOUT CUT JOINT - CLEAN RIG TANKS, RELEASE RIG @ 21:30

Operation Summary Report

Well: NBU 921-23E4BS RED	Spud Conductor: 6/4/2011	Spud Date: 6/23/2011	
Project: UTAH-UINTAH	Site: NBU 921-23E PAD		Rig Name No: ENSIGN 146/146, PROPETRO 11/11
Event: DRILLING	Start Date: 5/25/2011		End Date: 8/3/2011
Active Datum: RKB @4,876.00usft (above Mean Sea Level)	UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2,172.00/W/0/530.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	21:30 - 21:30	0.00	CSG					CONDUCTOR CASING: Cond. Depth set:40 Cement sx used:28 SPUD DATE/TIME:6/23/2011 17:00 SURFACE HOLE: Surface From depth:40 Surface To depth:2,780 Total SURFACE hours:34.00 Surface Casing size:9 5/8 # of casing joints ran:64 Casing set MD:2,748.0 # sx of cement:250/200/210 Cement blend (ppg:)11.0/15.8/15.8 Cement yield (ft3/sk):3.82/1.15/1.15 # of bbls to surface:N/A Describe cement issues:NONE Describe hole issues:NONE PRODUCTION: Rig Move/Skid start date/time:7/24/2011 17:00 Rig Move/Skid finish date/time:7/25/2011 15:00 Total MOVE hours:22.0 Prod Rig Spud date/time:7/26/2011 21:30 Rig Release date/time:8/3/2011 21:30 Total SPUD to RR hours:192.0 Planned depth MD10,012 Planned depth TVD10,006 Actual MD:10,025 Actual TVD:10,017 Open Wells $: AFE $: Open wells $/ft PRODUCTION HOLE: Prod. From depth:2,780 Prod. To depth:10,025 Total PROD hours: 124.5 Log Depth:10025 Float Collar Top Depth:9966 Production Casing size:4 1/2 # of casing joints ran:240 Casing set MD:10,012.0 Stage 1 # sx of cement:LEAD 1238, TAIL 625, SCAV 20 Cement density (ppg:)LEAD 12.2, TAIL 14.3, SCAV 11.2 Cement yield (ft3/sk):LEAD 2.17, TAIL 1.31, SCAV 2.99 Stage 2 # sx of cement: Cement density (ppg:) Cement yield (ft3/sk): Top Out Cmt # sx of cement:

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-23E4BS RED	Spud Conductor: 6/4/2011	Spud Date: 6/23/2011	
Project: UTAH-UINTAH	Site: NBU 921-23E PAD		Rig Name No: ENSIGN 146/146, PROPETRO 11/11
Event: DRILLING	Start Date: 5/25/2011		End Date: 8/3/2011
Active Datum: RKB @4,876.00usft (above Mean Sea Level)	UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2,172.00/W/0/530.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
								Cement density (ppg:) Cement yield (ft3/sk): Est. TOC (Lead & Tail) or 2 Stage : Describe cement issues:15 BBLS CEMENT TO SURFACE Describe hole issues:MINIMAL LOSSES DIRECTIONAL INFO: KOP:210 Max angle:5.25 Departure:151.20 Max dogleg MD:2.95

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 921-23E4BS RED	**Wellbore No.**	OH
Well Name	NBU 921-23E4BS	**Wellbore Name**	NBU 921-23E4BS
Report No.	1	**Report Date**	9/27/2011
Project	UTAH-UINTAH	**Site**	NBU 921-23E PAD
Rig Name/No.		**Event**	COMPLETION
Start Date	9/27/2011	**End Date**	10/12/2011
Spud Date	6/23/2011	**Active Datum**	RKB @4,876.00usft (above Mean Sea Level)
UWI	SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2,172.00/W/0/530.00/0/0		

1.3 General

Contractor	CASEDHOLE SOLUTIONS	**Job Method**	PERFORATE	**Supervisor**	KENNY WARREN
Perforated Assembly	PRODUCTION CASING	**Conveyed Method**	WIRELINE		

1.4 Initial Conditions

Fluid Type		**Fluid Density**	
Surface Press		**Estimate Res Press**	
TVD Fluid Top		**Fluid Head**	
Hydrostatic Press		**Press Difference**	
Balance Cond	NEUTRAL		

1.5 Summary

Gross Interval	7,820.0 (usft)-9,814.0 (usft	**Start Date/Time**	9/28/2011 12:00AM
No. of Intervals	27	**End Date/Time**	9/28/2011 12:00AM
Total Shots	0	**Net Perforation Interval**	43.00 (usft)
Avg Shot Density	0.00 (shot/ft)	**Final Surface Pressure**	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
9/28/2011 12:00AM	MESAVERDE/			7,820.0	7,822.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

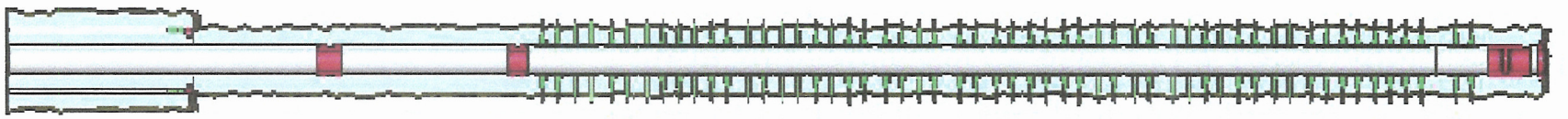
Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
9/28/2011 12:00AM	MESAVERDE/			7,862.0	7,864.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			7,960.0	7,962.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			8,037.0	8,038.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			8,063.0	8,064.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			8,093.0	8,095.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			8,192.0	8,194.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			8,250.0	8,252.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			8,314.0	8,315.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			8,334.0	8,335.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			8,461.0	8,462.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			8,487.0	8,488.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			8,680.0	8,681.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			8,770.0	8,771.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			8,830.0	8,832.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			8,882.0	8,884.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			8,942.0	8,943.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			9,033.0	9,034.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			9,174.0	9,175.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			9,193.0	9,196.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			9,252.0	9,253.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			9,333.0	9,334.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
9/28/2011 12:00AM	MESAVERDE/			9,428.0	9,430.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			9,449.0	9,450.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			9,468.0	9,469.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			9,484.0	9,485.0			0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/28/2011 12:00AM	MESAVERDE/			9,808.0	9,814.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

3 Plots

3.1 Wellbore Schematic



US ROCKIES REGION

Operation Summary Report

Well: NBU 921-23E4BS RED	Spud Conductor: 6/4/2011	Spud Date: 6/23/2011	
Project: UTAH-UINTAH	Site: NBU 921-23E PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 9/27/2011		End Date: 10/12/2011
Active Datum: RKB @4,876.00usft (above Mean Sea Level)	UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2,172.00/W/0/530.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/27/2011	7:00 - 15:00	8.00	COMP	33	C	P		MIRU B&C TESTERS, HAVE RNI FILL SURFACE CSG, HOOK UP TESTERS TO 4-1/2 CSG & PRESWSURE TEST. 1000# W/ 6# LOSS IN 15 MIN. 3500# W/ 32# LOSS IN 15 MIN. 7000# W/ 119# LOSS IN 30 MIN. 7000# W/ 81# LOSS IN 30 MIN. NO COMMUNICATION ON SURFACE CSG.
9/28/2011	7:00 - 9:30	2.50	COMP	36	B	P		HSM, R/U & PRE FRAC REVIEW, MIRU CASED HOLE SOLUTIONS & SUPERIOR FRAC EQUIP,
	9:30 - 18:00	8.50	COMP	36	B	P		PERF & FRAC FOLLOWING WELL AS PER DESIGN W/ 30/50 MESH SAND & SLK WTR. ALL CBP'S ARE HALIBURTON 8K CBP'S. REFER TO STIM PJR FOR FLIUD, SAND AND CHEMICL VOLUME PUM'D STG #1 P/U RIH W/ PERF GUN, PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #1] WHP=188#, BRK DN PERFS=4,255#, @=4.8 BPM, INJ RT=46.8, INJ PSI=6,194#, INITIAL ISIP=3,128#, INITIAL FG=.76, FINAL ISIP=2,946#, FINAL FG=.74, AVERAGE RATE=47.4, AVERAGE PRESSURE=6,093#, MAX RATE=50.7, MAX PRESSURE=6,386#, NET PRESSURE INCREASE= -182#, 21/24 86% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #2] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=9,515', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #2] WHP=591#, BRK DN PERFS=3,277#, @=4.7 BPM, INJ RT=43.4, INJ PSI=6,167#, INITIAL ISIP=2,037#, INITIAL FG=.66, FINAL ISIP=2,907#, FINAL FG=.75, AVERAGE RATE=50, AVERAGE PRESSURE=5,244#, MAX RATE=51.7, MAX PRESSURE=6,267#, NET PRESSURE INCREASE=870#, 14/24 60% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #3] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=9,226', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW. SWIFN.
9/29/2011	6:45 - 7:00	0.25	COMP	48		P		

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-23E4BS RED	Spud Conductor: 6/4/2011	Spud Date: 6/23/2011	
Project: UTAH-UINTAH	Site: NBU 921-23E PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 9/27/2011		End Date: 10/12/2011
Active Datum: RKB @4,876.00usft (above Mean Sea Level)	UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2,172.00/W/0/530.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 18:00	11.00	COMP	36	B	P		FRAC STG #3] WHP=1,780#, BRK DN PERFS=3,033#, @=4.7 BPM, INJ RT=48.8, INJ PSI=5,794#, INITIAL ISIP=2,595#, INITIAL FG=.72, FINAL ISIP=2,777#, FINAL FG=.74, AVERAGE RATE=49.6, AVERAGE PRESSURE=5,086#, MAX RATE=50.4, MAX PRESSURE=6,004#, NET PRESSURE INCREASE=182#, 20/24 85% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #4] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,914', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #4] WHP=2,447#, BRK DN PERFS=3,466#, @=4.6 BPM, INJ RT=48.1, INJ PSI=5,771#, INITIAL ISIP=2,641#, INITIAL FG=.74, FINAL ISIP=2,823#, FINAL FG=.76, AVERAGE RATE=49.9, AVERAGE PRESSURE=5,466#, MAX RATE=51.6, MAX PRESSURE=6,268#, NET PRESSURE INCREASE=182#, 20/24 84% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #5] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,518', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #5] WHP=376#, BRK DN PERFS=4,395#, @=4.7 BPM, INJ RT=46, INJ PSI=5,933#, INITIAL ISIP=2,951#, INITIAL FG=.79, FINAL ISIP=2,498#, FINAL FG=74., AVERAGE RATE=50.6, AVERAGE PRESSURE=5,140#, MAX RATE=51.5, MAX PRESSURE=6,029#, NET PRESSURE INCREASE= -453#, 19/24 84% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #6] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,224', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #6] WHP=2,016#, BRK DN PERFS=5,900#, @=4.7 BPM, INJ RT=49.7, INJ PSI=5,160#, INITIAL ISIP=3,119#, INITIAL FG=.82, FINAL ISIP=2,618#, FINAL FG=.76, AVERAGE RATE=50.5, AVERAGE PRESSURE=4,920#, MAX RATE=51.8, MAX PRESSURE=6,217#, NET PRESSURE INCREASE=-501#, 24/24 100% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #7] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,992', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW. SWIFN.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-23E4BS RED	Spud Conductor: 6/4/2011	Spud Date: 6/23/2011	
Project: UTAH-UINTAH	Site: NBU 921-23E PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 9/27/2011		End Date: 10/12/2011
Active Datum: RKB @4,876.00usft (above Mean Sea Level)	UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2,172.00/W/0/530.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/30/2011	6:45 - 7:00	0.25	COMP	48		P		HSM,
	7:00 - 7:00	0.00	COMP	36	B	P		FRAC STG #7] WHP=110#, BRK DN PERFS=1,709#, @=4.7 BPM, INJ RT=50.3, INJ PSI=4,815#, INITIAL ISIP=1,188#, INITIAL FG=.59, FINAL ISIP=2,429#, FINAL FG=.75, AVERAGE RATE=50.6, AVERAGE PRESSURE=3,973#, MAX RATE=51, MAX PRESSURE=5,533#, NET PRESSURE INCREASE=1,241#, 18/24 76% CALC PERFS OPEN. X OVER TO WIRE LINE P/U RIH W/ HALIBURTON 8K CBP, SET FOR TOP KILL @=7,770 TOTAL FLUID PUMP'D=6,394 BBLS TOTAL SAND PUMP'D=119,483#
10/11/2011	7:00 - 7:15	0.25	COMP	48		P		HSM, SLIPS, TRIPS & FALLS, P/U TBG
	7:15 - 17:00	9.75	COMP					MIRU, SPOT EQUIP, N/D WH, N/U 5K BOP, R/U FLOOR & TBG EQUIP, R/U HAL 9000 & FLOWLINE TO PIT, SPOT TBG TRAILER, P/U TBG, REMOVE THREAD PROTECTORS, TALLY & DRIFT TBG TO KILL PLUG, R/U P/S, FILL TBG, BREAK CIRC, PRESS TEST BOP TO 3,000 PSI FOR 15 MIN, LOST 0 PSI, SURFACE CSG VALVE OPEN & LOCKED, START DRLG PLUGS. C/O 30' SAND, TAG 1ST PLUG @ 7,770' DRL PLUG IN 6 MIN. 0 PSI INCREASE RIH, CSG PRESS 0 PSI. WELL ON VACUMN, NO RETURNS. C/O 40' SAND, TAG 2ND PLUG @ 7,992' DRL PLUG IN 7 MIN. 400 PSI INCREASE RIH, CSG PRESS 50 PSI. WELL FLOWING. C/O 35' SAND, TAG 3RD PLUG @ 8,224' DRL PLUG IN 8 MIN. 350 PSI INCREASE RIH, CSG PRESS 150 PSI. C/O 30' SAND, TAG 4TH PLUG @ 8,514' DRL PLUG IN 7 MIN. 600 PSI INCREASE RIH, CSG PRESS 250 PSI. CIRC & LET WELL CLEAN UP FOR 30 MIN, D/O REMAINING PLUGS IN AM, EOT @ 8,850', SWI, SDFN.
10/12/2011	7:00 - 7:15	0.25	COMP	48		P		HSM, SLIPS, TRIPS & FALLS, LANDING TBG

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-23E4BS RED	Spud Conductor: 6/4/2011	Spud Date: 6/23/2011	
Project: UTAH-UINTAH	Site: NBU 921-23E PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 9/27/2011		End Date: 10/12/2011
Active Datum: RKB @4,876.00usft (above Mean Sea Level)	UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2,172.00/W/0/530.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 14:00	6.75	COMP	44	C	P		SICP 2,400 PSI, OPEN WELL BLEED OFF PRESS, OPEN RAMS, FINISH D/O REMAINING 3 PLUGS, SURFACE CSG VALVE OPEN & LOCKED. C/O 15' SAND, TAG 5TH PLUG @ 8,914' DRL PLUG IN 8 MIN. 300 PSI INCREASE RIH, CSG PRESS 400 PSI. C/O 30' SAND, TAG 6TH PLUG @ 9,226' DRL PLUG IN 7 MIN. 200 PSI DECREASE RIH, CSG PRESS 500 PSI. C/O 25' SAND, TAG 7TH PLUG @ 9,515' DRL PLUG IN 6 MIN. 0 PSI DECREASE RIH, CSG PRESS 400 PSI. PBTD @ 9,967', BTM PERF @ 9,814', RIH TAG @ 9,930', P/U PS, C/O FROM 9.930' TO 9,967 PBTD, 153' PAST BTM PERF W/ 314 JTS 2 3/8" L-80 TBG, LD 23 JTS, PU & STRIP IN TBG HANGER & LAND TBG W/ 291 JTS 2 3/8" L-80, EOT 9,235.39'. RD POWER SWIVEL, FLOOR & TBG EQUIP, ND BOPS, NU WH, DROP BALL TO SHEAR OFF BIT W/ 2,200 PSI, LET BIT FALL FOR 20 MIN. TURN OVER TO FLOW BACK CREW, RD. KB= 14' 4 1/16" WEATHERFORD HANGER= .83' TBG DELIVERED 318 JTS 291 JTS 2 3/8" L-80 = 9,218.36' TBG USED 291 JTS POBS= 2.20' TBG RETURNED 27 JTS EOT @ 9,235.39' TWTR= 6,394 BBLS TWR= 1,500 BBLS TWLTR= 4,894 BBLS
	13:00 - 13:00	0.00	PROD	50				WELL TURNED TO SALES @ 1300 HR ON 10/12/11 - 1600 MCFD, 1440 BWPD, CP 2100#, FTP 1600#, CK 20/64"

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well Information

Well	NBU 921-23E4BS RED	**Wellbore No.**	OH
Well Name	NBU 921-23E4BS	**Common Name**	NBU 921-23E4BS
Project	UTAH-UINTAH	**Site**	NBU 921-23E PAD
Vertical Section Azimuth	55.62 (°)	**North Reference**	True
Origin N/S		**Origin E/W**	
Spud Date	6/23/2011	**UWI**	SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2,172.00/W/0/530.00/0/0
Active Datum	RKB @4,876.00usft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: SURF. DEVIATION

Survey Name	SURF. DEVIATION	**Company**	WEATHERFORD
Started	6/23/2011	**Ended**	
Tool Name	MWD	**Engineer**	Anadarko

2.1.1 Tie On Point

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	N/S (usft)	E/W (usft)
10.00	0.00	0.00	10.00	0.00	0.00

2.1.2 Survey Stations

Date	Type	MD (usft)	Inc (°)	Azi (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	TFace (°)
6/23/2011	Tie On	10.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6/24/2011	NORMAL	186.00	0.51	302.48	186.00	0.42	-0.66	-0.31	0.29	0.29	0.00	302.48
	NORMAL	299.00	0.52	8.31	298.99	1.20	-1.01	-0.16	0.50	0.01	58.26	122.05
	NORMAL	360.00	1.25	48.55	359.99	1.91	-0.47	0.69	1.50	1.20	65.97	61.73
	NORMAL	450.00	1.94	56.12	449.95	3.41	1.53	3.19	0.80	0.77	8.41	20.79
	NORMAL	540.00	2.44	57.12	539.89	5.30	4.40	6.63	0.56	0.56	1.11	4.87
	NORMAL	630.00	2.75	50.50	629.79	7.71	7.68	10.69	0.48	0.34	-7.36	-47.37
	NORMAL	720.00	3.88	44.62	719.64	11.25	11.48	15.83	1.31	1.26	-6.53	-19.70
	NORMAL	810.00	4.75	38.62	809.39	16.33	15.95	22.38	1.09	0.97	-6.67	-30.44
	NORMAL	900.00	5.19	39.75	899.05	22.38	20.88	29.86	0.50	0.49	1.26	13.11
	NORMAL	990.00	5.25	39.00	988.67	28.70	26.07	37.72	0.10	0.07	-0.83	-49.05
	NORMAL	1,080.00	5.22	43.75	1,078.30	34.86	31.49	45.68	0.48	-0.03	5.28	96.32
	NORMAL	1,170.00	5.25	44.50	1,167.92	40.76	37.21	53.72	0.08	0.03	0.83	66.70
	NORMAL	1,260.00	5.19	39.37	1,257.55	46.84	42.68	61.67	0.52	-0.07	-5.70	-99.87
	NORMAL	1,350.00	4.06	36.25	1,347.26	52.56	47.14	68.59	1.29	-1.26	-3.47	-169.00
	NORMAL	1,440.00	5.00	43.75	1,436.98	57.96	51.74	75.43	1.23	1.04	8.33	35.99
	NORMAL	1,530.00	5.06	49.99	1,526.63	63.34	57.49	83.22	0.61	0.07	6.93	86.86
	NORMAL	1,620.00	4.88	51.50	1,616.29	68.28	63.53	90.99	0.25	-0.20	1.68	144.74

2.1.2 Survey Stations (Continued)

Date	Type	MD (usft)	Inc (°)	Azi (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	TFace (°)
6/24/2011	NORMAL	1,710.00	4.63	43.37	1,705.98	73.30	69.02	98.35	0.80	-0.28	-9.03	-114.37
	NORMAL	1,860.00	4.89	44.63	1,855.46	82.25	77.67	110.55	0.19	0.17	0.84	22.54
6/25/2011	NORMAL	1,890.00	4.81	42.12	1,885.36	84.10	79.41	113.02	0.76	-0.27	-8.37	-111.90
	NORMAL	1,980.00	4.13	41.62	1,975.08	89.32	84.09	119.84	0.76	-0.76	-0.56	-176.97
	NORMAL	2,070.00	4.25	36.50	2,064.84	94.42	88.23	126.13	0.44	0.13	-5.69	-74.78
	NORMAL	2,160.00	3.94	36.87	2,154.61	99.58	92.07	132.21	0.35	-0.34	0.41	175.31
	NORMAL	2,250.00	2.94	59.25	2,244.45	103.23	95.91	137.44	1.84	-1.11	24.87	137.49
	NORMAL	2,340.00	2.44	48.87	2,334.35	105.67	99.33	141.65	0.77	-0.56	-11.53	-140.85
	NORMAL	2,430.00	2.00	37.32	2,424.29	108.18	101.73	145.04	0.69	-0.49	-12.83	-140.20
	NORMAL	2,520.00	1.75	43.75	2,514.24	110.42	103.63	147.88	0.36	-0.28	7.14	143.10
	NORMAL	2,610.00	0.94	57.75	2,604.21	111.81	105.21	149.96	0.96	-0.90	15.56	164.82
	NORMAL	2,730.00	0.31	93.59	2,724.21	112.31	106.36	151.20	0.59	-0.53	29.87	165.23

2.2 Survey Name: PRODUCTION

Survey Name	PRODUCTION	**Company**	WEATHERFORD
Started	7/24/2011	**Ended**	
Tool Name	MWD	**Engineer**	Anadarko

2.2.1 Tie On Point

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	N/S (usft)	E/W (usft)
2,730.00	0.31	93.59	2,724.21	112.31	106.36

2.2.2 Survey Stations

Date	Type	MD (usft)	Inc (°)	Azi (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	TFace (°)
7/24/2011	Tie On	2,730.00	0.31	93.59	2,724.21	112.31	106.36	151.20	0.00	0.00	0.00	0.00
7/26/2011	NORMAL	2,807.00	0.47	129.04	2,801.20	112.10	106.81	151.46	0.37	0.21	46.04	75.03
	NORMAL	2,898.00	0.66	159.11	2,892.20	111.38	107.29	151.44	0.38	0.21	33.04	72.99
	NORMAL	2,989.00	1.08	178.98	2,983.19	110.03	107.49	150.85	0.56	0.46	21.84	45.90
	NORMAL	3,079.00	1.25	147.61	3,073.17	108.35	108.03	150.35	0.72	0.19	-34.86	-91.12
	NORMAL	3,170.00	1.25	144.24	3,164.15	106.71	109.15	150.34	0.08	0.00	-3.70	-91.68
	NORMAL	3,260.00	1.31	154.74	3,254.13	104.98	110.16	150.20	0.27	0.07	11.67	80.94
	NORMAL	3,351.00	0.38	224.74	3,345.12	103.83	110.39	149.73	1.35	-1.02	76.92	163.16
	NORMAL	3,442.00	1.50	346.99	3,436.11	104.77	109.91	149.87	1.90	1.23	134.34	132.94
	NORMAL	3,532.00	1.00	338.11	3,526.09	106.65	109.35	150.47	0.59	-0.56	-9.87	-163.22
7/27/2011	NORMAL	3,623.00	0.38	283.86	3,617.08	107.46	108.76	150.44	0.92	-0.68	-59.62	-158.38
	NORMAL	3,713.00	0.38	223.24	3,707.08	107.31	108.27	149.95	0.43	0.00	-67.36	-120.31
	NORMAL	3,804.00	0.88	223.49	3,798.07	106.58	107.58	148.97	0.55	0.55	0.27	0.44
	NORMAL	3,895.00	1.00	226.24	3,889.06	105.53	106.53	147.51	0.14	0.13	3.02	21.98
	NORMAL	3,986.00	2.06	122.49	3,980.04	104.10	107.33	147.37	2.74	1.16	-114.01	-126.66
	NORMAL	4,076.00	1.81	136.74	4,069.99	102.20	109.67	148.22	0.60	-0.28	15.83	124.46
	NORMAL	4,167.00	1.56	142.11	4,160.95	100.17	111.42	148.52	0.32	-0.27	5.90	150.39
	NORMAL	4,258.00	1.69	151.36	4,251.91	98.02	112.82	148.46	0.32	0.14	10.16	68.31
	NORMAL	4,348.00	1.94	155.86	4,341.87	95.46	114.08	148.06	0.32	0.28	5.00	31.95
	NORMAL	4,439.00	0.56	58.36	4,432.85	94.29	115.09	148.23	2.29	-1.52	-107.14	-164.58
	NORMAL	4,530.00	0.25	95.99	4,523.85	94.50	115.66	148.82	0.43	-0.34	41.35	157.14
	NORMAL	4,620.00	0.44	152.74	4,613.85	94.17	116.02	148.93	0.41	0.21	63.06	91.36
	NORMAL	4,711.00	1.00	150.11	4,704.84	93.18	116.57	148.82	0.62	0.62	-2.89	-4.69
	NORMAL	4,802.00	1.00	81.99	4,795.83	92.60	117.76	149.47	1.23	0.00	-74.86	-124.06
	NORMAL	4,892.00	0.88	95.49	4,885.82	92.64	119.22	150.71	0.28	-0.13	15.00	125.09

2.2.2 Survey Stations (Continued)

Date	Type	MD (usft)	Inc (°)	Azi (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	TFace (°)
7/27/2011	NORMAL	4,983.00	0.75	119.11	4,976.81	92.28	120.44	151.51	0.39	-0.14	25.96	122.69
	NORMAL	5,073.00	0.81	141.11	5,066.80	91.50	121.35	151.82	0.34	0.07	24.44	89.81
	NORMAL	5,164.00	0.94	140.99	5,157.79	90.42	122.23	151.93	0.14	0.14	-0.13	-0.87
	NORMAL	5,255.00	1.13	143.24	5,248.77	89.12	123.23	152.03	0.21	0.21	2.47	13.20
	NORMAL	5,345.00	1.94	31.99	5,338.75	89.70	124.57	153.46	2.86	0.90	-123.61	-135.38
	NORMAL	5,436.00	1.50	41.49	5,429.71	91.90	126.18	156.03	0.57	-0.48	10.44	151.74
	NORMAL	5,526.00	1.31	46.09	5,519.69	93.50	127.70	158.19	0.25	-0.21	5.11	151.59
	NORMAL	5,617.00	0.94	57.36	5,610.67	94.62	129.08	159.96	0.47	-0.41	12.38	154.67
	NORMAL	5,708.00	0.94	69.24	5,701.66	95.29	130.40	161.43	0.21	0.00	13.05	95.94
	NORMAL	5,798.00	0.81	77.49	5,791.65	95.69	131.71	162.74	0.20	-0.14	9.17	139.97
	NORMAL	5,889.00	0.75	93.49	5,882.64	95.79	132.94	163.81	0.25	-0.07	17.58	113.31
	NORMAL	5,980.00	0.56	111.24	5,973.63	95.60	133.94	164.53	0.30	-0.21	19.51	141.76
	NORMAL	6,070.00	0.63	115.99	6,063.63	95.22	134.80	165.02	0.10	0.08	5.28	37.56
	NORMAL	6,161.00	0.94	126.86	6,154.62	94.55	135.85	165.51	0.38	0.34	11.95	31.16
7/28/2011	NORMAL	6,252.00	1.25	147.61	6,245.60	93.27	136.98	165.71	0.55	0.34	22.80	62.66
	NORMAL	6,342.00	1.44	143.24	6,335.58	91.53	138.18	165.73	0.24	0.21	-4.86	-30.56
	NORMAL	6,433.00	1.69	152.99	6,426.54	89.42	139.47	165.60	0.40	0.27	10.71	51.75
	NORMAL	6,524.00	0.88	96.24	6,517.52	88.15	140.78	165.96	1.55	-0.89	-62.36	-148.64
	NORMAL	6,614.00	0.31	229.36	6,607.52	87.91	141.28	166.24	1.24	-0.63	147.91	168.29
	NORMAL	6,705.00	0.81	294.99	6,698.51	88.03	140.51	165.67	0.81	0.55	72.12	88.12
	NORMAL	6,796.00	0.31	318.74	6,789.51	88.48	139.76	165.31	0.59	-0.55	26.10	166.65
	NORMAL	6,886.00	1.19	6.24	6,879.50	89.59	139.70	165.89	1.12	0.98	52.78	60.62
	NORMAL	6,977.00	1.31	32.74	6,970.48	91.41	140.37	167.46	0.64	0.13	29.12	91.72
	NORMAL	7,067.00	1.75	14.36	7,060.45	93.61	141.27	169.45	0.73	0.49	-20.42	-57.55
	NORMAL	7,158.00	1.31	13.36	7,151.42	95.96	141.85	171.26	0.48	-0.48	-1.10	-177.03
	NORMAL	7,249.00	1.00	13.36	7,242.40	97.75	142.28	172.62	0.34	-0.34	0.00	180.00
	NORMAL	7,339.00	0.75	23.99	7,332.39	99.05	142.70	173.70	0.33	-0.28	11.81	152.24
	NORMAL	7,430.00	0.31	38.11	7,423.38	99.79	143.09	174.44	0.50	-0.48	15.52	170.45
	NORMAL	7,521.00	1.44	299.99	7,514.37	100.55	142.25	174.18	1.67	1.24	-107.82	-109.80
7/29/2011	NORMAL	7,611.00	1.38	300.11	7,604.35	101.66	140.33	173.23	0.07	-0.07	0.13	177.24
	NORMAL	7,702.00	1.63	320.61	7,695.32	103.21	138.57	172.64	0.65	0.27	22.53	75.57
	NORMAL	7,793.00	1.25	302.61	7,786.29	104.75	136.91	172.14	0.64	-0.42	-19.78	-138.80
	NORMAL	7,883.00	1.43	273.33	7,876.26	105.34	134.96	170.87	0.78	0.20	-32.53	-90.22
	NORMAL	7,974.00	1.31	261.49	7,967.24	105.25	132.80	169.03	0.34	-0.13	-13.01	-118.82
	NORMAL	8,065.00	1.81	294.24	8,058.21	105.69	130.46	167.35	1.10	0.55	35.99	77.76
	NORMAL	8,155.00	1.50	286.11	8,148.17	106.60	128.03	165.86	0.43	-0.34	-9.03	-146.88
	NORMAL	8,246.00	1.63	269.49	8,239.13	106.92	125.59	164.03	0.52	0.14	-18.26	-82.43
	NORMAL	8,336.00	1.63	257.36	8,329.10	106.63	123.06	161.78	0.38	0.00	-13.48	-96.06
	NORMAL	8,427.00	1.81	197.36	8,420.06	104.97	121.37	159.45	1.90	0.20	-65.93	-114.81
7/30/2011	NORMAL	8,518.00	2.13	214.49	8,511.01	102.21	119.98	156.74	0.73	0.35	18.82	70.22
	NORMAL	8,608.00	1.88	206.86	8,600.96	99.51	118.37	153.89	0.41	-0.28	-8.48	-136.89
	NORMAL	8,699.00	1.69	207.11	8,691.91	96.99	117.08	151.40	0.21	-0.21	0.27	177.78
	NORMAL	8,790.00	1.69	212.61	8,782.87	94.66	115.75	148.98	0.18	0.00	6.04	92.75
	NORMAL	8,880.00	1.00	25.36	8,872.86	94.25	115.37	148.44	2.98	-0.77	191.94	177.31
	NORMAL	8,971.00	2.38	30.49	8,963.82	96.60	116.67	150.84	1.52	1.52	5.64	8.82
	NORMAL	9,061.00	1.81	32.11	9,053.76	99.41	118.37	153.83	0.64	-0.63	1.80	174.88
	NORMAL	9,152.00	1.69	34.99	9,144.72	101.73	119.91	156.41	0.16	-0.13	3.16	145.19
	NORMAL	9,243.00	1.38	32.61	9,235.69	103.75	121.27	158.67	0.35	-0.34	-2.62	-169.57
7/31/2011	NORMAL	9,333.00	1.06	46.99	9,325.66	105.23	122.46	160.49	0.49	-0.36	15.98	143.30
	NORMAL	9,424.00	1.19	53.86	9,416.65	106.36	123.84	162.27	0.21	0.14	7.55	49.52
	NORMAL	9,515.00	0.94	65.49	9,507.63	107.23	125.28	163.95	0.36	-0.27	12.78	144.87
	NORMAL	9,605.00	0.75	59.73	9,597.62	107.83	126.46	165.26	0.23	-0.21	-6.40	-158.77
	NORMAL	9,696.00	0.88	73.73	9,688.61	108.33	127.65	166.52	0.26	0.14	15.38	63.99
8/1/2011	NORMAL	9,789.00	0.75	74.36	9,781.60	108.69	128.92	167.78	0.14	-0.14	0.68	176.37
	NORMAL	9,879.00	0.88	122.11	9,871.60	108.49	130.07	168.61	0.74	0.14	53.06	103.66

2.2.2 Survey Stations (Continued)

Date	Type	MD (usft)	Inc (°)	Azi (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	TFace (°)
8/1/2011	NORMAL	9,975.00	1.06	131.61	9,967.58	107.50	131.36	169.12	0.25	0.19	9.90	46.59
	NORMAL	10,025.00	1.06	131.61	10,017.57	106.89	132.05	169.34	0.00	0.00	0.00	0.00